# Chapter-III
## Healthcare Services

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Services that a health institution is expected to provide can be grouped as Essential (Minimum Assured Services) and Desirable (which we should aspire to achieve). The services include Outpatient Department (OPD), Indoor and Emergency Services. Audit findings related to OPD services have been described in the succeeding paragraphs.

## 3.1 OPD Services

### 3.1.1 Availability of OPD services in hospitals

As per IPHS 2012 norms, OPD services of ENT, General Medicine, Paediatrics, General Surgery, Ophthalmology, Dental, Obstetrics & Gynaecology, Psychiatry and Orthopaedics are essential and Dermatology & Venereology are desirable for District Hospitals (DH).

Details of availability/non-availability of OPD services in DHs and Government Medical College and Hospital (GMCH[1]) as on 31 March 2023 are given in **Table 3.1**.

**Table 3.1: Availability of OPD services in District Hospitals/RH Patiala**

| Sr. No. | Name of DH | Speciality Services (OPD) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ENT | General Medicine | Paediatrics | General Surgery | Ophthalmology | Dental | Obstetrics & Gynaecology | Psychiatry | Orthopaedics | Dermatology & Venereology |
| 1. | Amritsar | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| 2. | Barnala | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 3. | Bathinda | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 4. | Faridkot | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5. | Fatehgarh Sahib | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 6. | Fazilka | Y | N | Y | Y | Y | Y | N | Y | Y | Y |
| 7. | Ferozepur | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 8. | Gurdaspur | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 9. | Hoshiarpur | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |

[1] Rajindra Hospital (RH), Patiala.

| Sr. No. | Name of DH | Speciality Services (OPD) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ENT | General Medicine | Paediatrics | General Surgery | Ophthalmology | Dental | Obstetrics & Gynaecology | Psychiatry | Orthopaedics | Dermatology & Venereology |
| 10. | Jalandhar | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 11. | Kapurthala | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 12. | Ludhiana | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 13. | Malerkotla | Y | Y | Y | Y | N | Y | N | Y | Y | Y |
| 14. | Mansa | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 15. | Moga | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 16. | Pathankot | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 17. | Patiala | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 18. | Rupnagar | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 19. | Sangrur | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 20. | SAS Nagar | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 21. | SBS Nagar | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 22. | Sri Muktsar Sahib | N | N | Y | N | Y | Y | Y | Y | Y | Y |
| 23. | Tarn Taran | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| | RH Patiala | Y | Y | Y | Y | Y | N | Y | Y | Y | Y |

*Source: Information furnished by DHs/GMCH*

**Available** **Not available**

It is evident from the above table that most of the required specialty OPD services were available in all DHs of the State but ENT OPD service in DH Sri Muktsar Sahib, General Medicine in DHs at Fazilka and Sri Muktsar Sahib, General Surgery in DH Sri Muktsar Sahib, Ophthalmology in DH Malerkotla, Obstetrics & Gynaecology in DHs at Fazilka and Malerkotla, and Psychiatry OPD service in DH Amritsar were not available. Dental OPD service was also not available in test-checked GMCH Patiala (RH Patiala).

The reply of the State Government was awaited (February 2024).

### 3.1.2 Availability of OPD services in CHCs

As per IPHS 2012 norms, General Medicine, Surgery, Obstetrics & Gynaecology, Paediatrics, Dental and AYUSH Services, Emergency Services, Laboratory Services, and National Health Programmes should be available in CHCs.

The availability of OPD services in test-checked CHCs is given in **Table 3.2**.

**Table 3.2: Availability of OPD services in test-checked CHCs**

| Sr. No. | Name of CHC | General Medicine | General Surgery | Obstetrics & Gynaecology | Paediatrics | Dental | AYUSH | Emergency | Laboratory |
|---|---|---|---|---|---|---|---|---|---|
| 1. | Bhucho Mandi | A | A | A | NA | NA | NA | A | A |
| 2. | Mehraj | NA | NA | NA | NA | NA | NA | NA | A |
| 3. | Bassi Pathana | A | NA | NA | NA | A | A | A | A |
| 4. | Amloh | A | A | A | A | A | NA | A | A |
| 5. | Fatehgarh Churian | A | A | A | A | A | NA | A | A |
| 6. | Naushera Majja Singh | A | A | A | NA | A | NA | A | A |
| 7. | Mahilpur | A | A | A | A | A | A | A | A |
| 8. | Shamchaurasi | A | A | A | A | A | A | A | A |
| 9. | Sidhwan Bet | A | NA | A | A | A | A | A | A |
| 10. | Sudhar | A | A | A | A | A | A | A | A |
| 11. | Bagha Purana | A | NA | A | NA | NA | NA | A | A |
| 12. | Nihal Singh Wala | A | NA | A | NA | NA | NA | A | A |

*Source: Information furnished by test-checked CHCs*

**Colour code: Green denotes 'availability (A)' and Red denotes 'non-availability (NA)'**

From above, it may be seen that General Medicine in one CHC, General Surgery in five, Obstetrics and Gynaecology in two, Paediatrics in six, Dental OPD in four, AYUSH facilities in seven CHCs and Emergency in one CHC were not available. However, no OPD services were available in CHC Mehraj except for laboratory services, which was available in all test-checked CHCs. Moreover, General Surgery OPD service in three[2] CHCs, Obstetrics and Gynaecology OPD service in four[3] CHCs and Paediatrics OPD service in four[4] CHCs were being provided without availability of specialists. Shortage of manpower (doctors and paramedical staff) in CHCs has been mentioned in **Paragraph 2.5.5.1 of Chapter II**.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.1.3 Availability of OPD services in PHCs

As per IPHS 2012 norms, six hours of OPD services out of which four hours in the morning and two hours in the afternoon for six days in a week are required in PHCs. No specific OPD services are prescribed in IPHS for PHCs. OPD services were available in all the test-checked PHCs except PHC Jodhpur Pakhar since August 2019. Further, five[5] PHCs without Medical

[2] CHCs at (i) Amloh; (ii) Fatehgarh Churian; and (iii) Shamchaurasi.

[3] CHCs at (i) Shamchaurasi; (ii) Sudhar; (iii) Bagha Purana; and (iv) Nihal Singh Wala.

[4] CHCs at (i) Mahilpur; (ii) Shamchaurasi; (iii) Sidhwan Bet; and (iv) Sudhar.

[5] PHCs at (i) Jodhpur Pakhar; (ii) Bhai Rupa; (iii) Possi; (iv) Thathi Bhai; and (v) Mallianwala.

Officers and three[6] PHCs without Staff Nurse were operational, as discussed in **Paragraph 2.5.5.1 of Chapter II**.

As primary healthcare institutions are to provide essential healthcare services which are accessible and affordable to the local community, non-availability of essential OPD services resulted in denial of such facilities to the community.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.1.4 Non-availability of infrastructure for AYUSH services in CHCs and PHCs

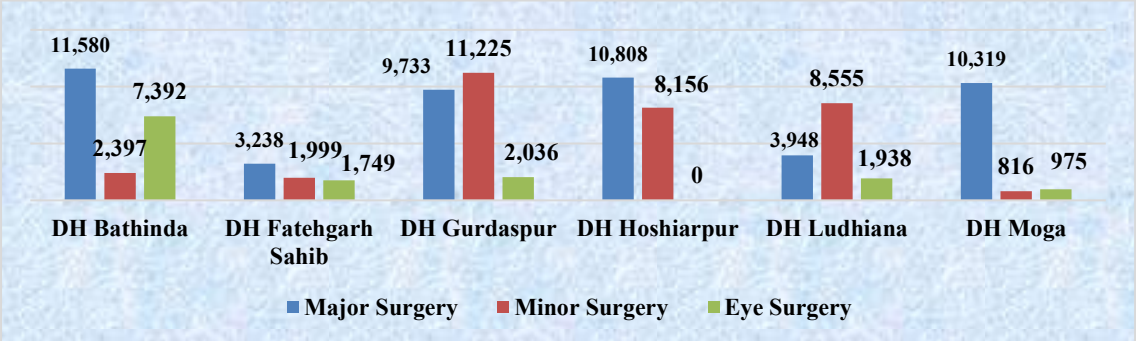
As per IPHS 2012 norms, CHCs and PHCs should have AYUSH doctor, necessary infrastructure such as consultation room for AYUSH doctor and AYUSH drug dispensing area should be made available.

AYUSH services were available in five[7] out of 12 CHCs. Further, out of 24 test-checked PHCs, only seven PHCs (Mandi Kalan, Nandpur Kalour, Sanghol, Dhianpur, Ranjit Bagh, Mand Bhandher and Behrampur) had AYUSH services. The reply of the State Government was awaited (February 2024).

### 3.1.5 Availability of major, minor and eye surgeries

As per NHM Assessor's Guidebook, 2013 and IPHS 2012 norms, surgeries related to General Surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, ENT, Orthopaedics, etc. should be available at District Hospital. In CHCs, surgeries related to General Surgery, Obstetrics and Gynaecology and accident and emergency services should be available.

**Chart 3.1: Major, minor and eye surgeries performed in DHs during 2016-17 to 2021-22**

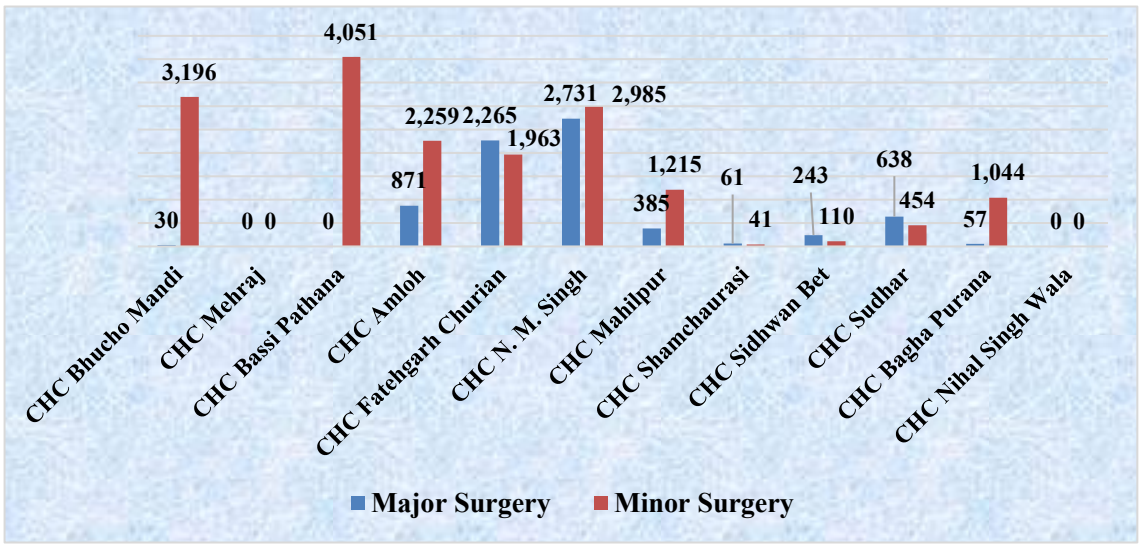



*Source: Information furnished by selected DHs*
*Note: No separate records for eye surgeries were maintained in DH Hoshiarpur. Figures mentioned for major/minor surgeries include eye surgeries.*

[6] PHCs at (i) Jodhpur Pakhar; (ii) Otalon; and (iii) Mallianwala.
[7] CHCs at (i) Bassi Pathana; (ii) Mahilpur; (iii) Shamchaurasi; (iv) Sidhwan Bet; and (v) Sudhar.

Major, minor and eye surgeries were available in all selected DHs. However, out of 12 selected CHCs, two CHCs[8] did not conduct any surgery during 2016- 2022 due to non-posting of surgeon, as shown in **Chart 3.2.**

**Chart 3.2: Major and Minor surgeries performed in CHCs during 2016-17 to 2021-22**

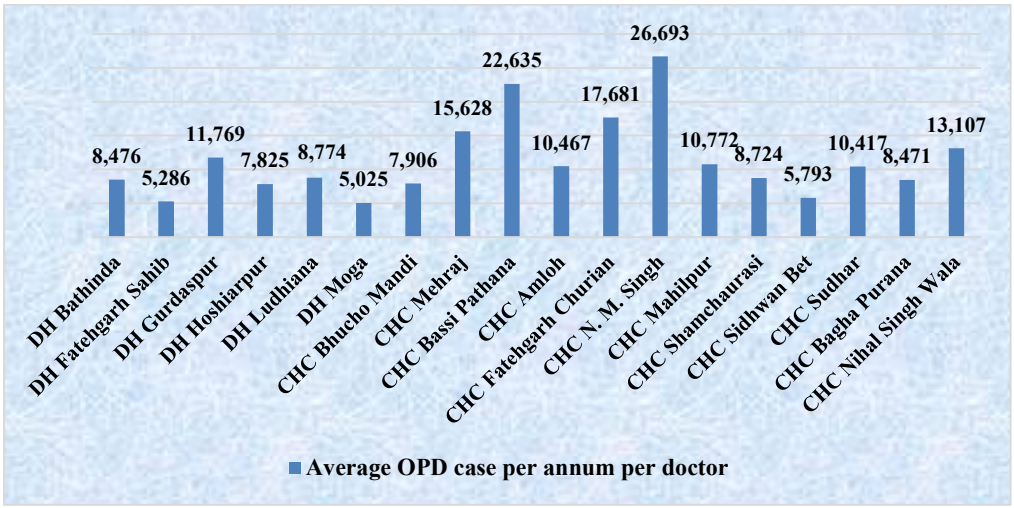



*Source: Information furnished by test-checked CHCs*

### 3.1.6 Average OPD cases per doctor per annum against available OPD services

In test-checked DHs and CHCs, the average OPD cases per doctor per annum was highest (26,693) in CHC N. M. Singh and lowest (5,025) in DH Moga, as shown in **Chart 3.3.**

**Chart 3.3: Average OPD cases per annum per doctor during 2016-2022**




*Source: Information furnished by test-checked DHs and CHCs*

[8] CHCs at (i) Mehraj; and (ii) Nihal Singh Wala.

This shows that the availability of doctors is required to be ensured as per the patient load in the health institutions. Such analysis could form the basis for the creation of posts for doctors as well as their deployment.

The reply of the State Government was awaited (February 2024).

### 3.1.7 Patients' registration management

NHM Assessor's Guidebook (Standard E1) provides the process of registration and admission in hospitals. It also covers OPD consultation processes and the assessor should review the records to verify that details of patients have been recorded, and patients have been given unique identification number. OPD consultation may be directly observed, followed by review of OPD tickets to ensure that patient history, examination details, etc. have been recorded on the OPD ticket. Further, Paragraphs 12.16 and 12.24 of 'Hospital Manual' published by the Directorate General of Health Services, Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) provides that in the Outpatient Department, every patient is given a registration number in the form of a card/ ticket which is returned to the patient with the history, examination finding, provisional diagnosis and treatment written on it and for attending special clinics. A proper follow-up of record/file has to be kept in OPD for five years.

Audit observed that online registration facility was not available in any healthcare institution. There was only a rudimentary level of computerisation for registration and patient management in the test-checked DHs. The registration of patients was done at the counter and prescription slips were provided (valid for 30 days) with registration number in which name, age and address of the patients were recorded but the subsequent diagnosis prescribed by doctors, results thereof, medicines prescribed and distributed, status of patients treated and referred to other institutions were not recorded in the registration records of DHs. However, in RH Patiala, CHCs and PHCs, registration of patients was being done manually.

Lack of patient treatment history may prevent provision of proper medical care by the doctors during subsequent visits. Further, in absence of the basic database of the patients, actual number of patients treated, referred to other facility, diagnosis prescribed and conducted at the RH/DHs/CHCs/PHCs, medicines disbursed could not be ascertained in audit.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

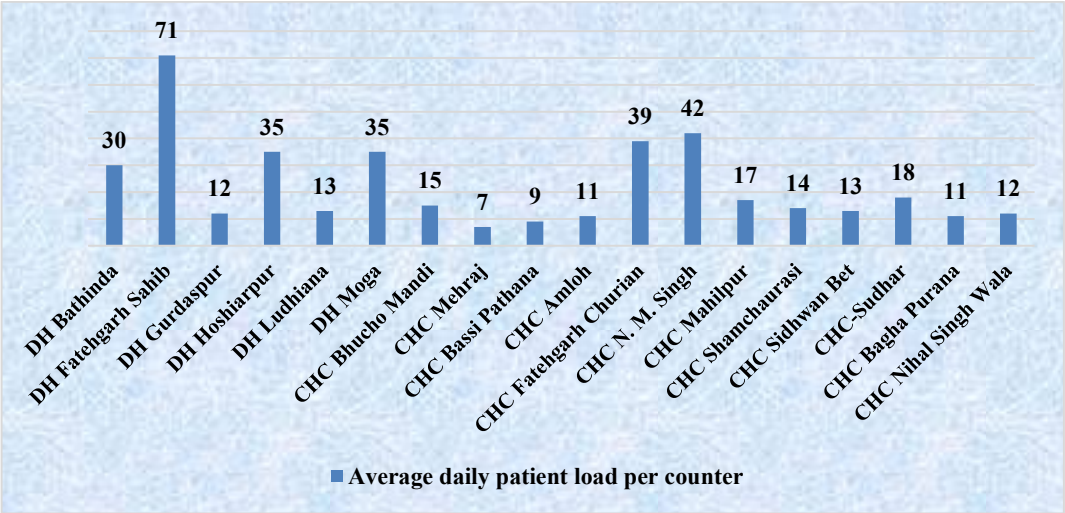
#### *3.1.7.1 Availability of registration counter and average daily patient load per Counter*

As per NHM Assessor's Guidebook for Quality Assurance in health institutions, number of counters should be such that there are 12-20 patients

per hour per counter. Total 291 working days and six hours per day OPD have been considered during 2020-21.

Average number of patients per hour per counter in DHs and CHCs during 2020-21 is depicted in **Chart 3.4**.

**Chart 3.4: Average number of patients per hour per counter during 2020-21**




*Source: Information furnished by test-checked Health Institutions*

As can be seen from the above, DHs at Bathinda, Fatehgarh Sahib, Hoshiarpur, Moga, CHCs at Fatehgarh Churian and Naushera Majja Singh had more average number of patients per hour per counter than the norms during 2020-21. Thus, the health institutions having higher patient load against the norms should increase the number of counters. The result of higher number of patients was visible in long queues in the hospitals as depicted in the photographs below:

| | |
|---|---|
|  |  |
| **Long queues of OPD patients at registration counters in DH, Hoshiarpur** | **OPD patients waiting at registration counters in DH, Moga** |

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.1.8 Availability of seating arrangement, toilet facility and patient calling system (Digitalisation)

As per IPHS 2012 norms, waiting area with adequate seating arrangement shall be provided. Main entrance, general waiting and subsidiary waiting spaces are required adjacent to each consultation and treatment room in all the clinics. Fluorescent fire exit plan/sign shall be displayed at each floor; safety, hazard and caution signs should be displayed prominently at relevant places. To avoid overcrowding, health institutions should have patient calling system with electronic display. The status of provision of the above facilities/services in test-checked DHs/CHCs/PHCs is given in **Table 3.3**.

**Table 3.3: Availability of seating arrangement, toilet facility, etc.**

| Name of service | District Hospitals (6) | CHCs (12) | PHCs (24) |
|---|---|---|---|
| Display of fluorescent fire exit sign | 5 | 5 | 4 |
| Enquiry/'May I Help' Desk with staff fluent in local language | 2 | 8 | -- |
| Directional signage for Emergency, Departments and Utilities | 5 | 9 | 10 |
| Safety, hazard and caution signs were displayed prominently at relevant places | 6 | 9 | 8 |
| Important contacts like higher medical centres, blood banks, fire department, police and ambulance services were displayed | 6 | 7 | 7 |
| Mandatory information (under RTI Act, PNDT Act, etc.) was displayed | 6 | 7 | 11 |
| Adequate seating facility | 6 | 10 | 18 |
| Patient Calling System (Digital) | 4 | 7 | -- |
| Separate toilets for males and females | 6 | 12 | 15 |

*Source: Data furnished by test-checked health institutions*

***Colour code*: Green depicts 'availability in all health institutions', Yellow depicts 'availability in most of the health institutions' and Red depicts 'availability of facility in few health institutions'**

It is observed from the above table that -

- Fluorescent fire exit sign was displayed in five DHs, five CHCs and four PHCs only. Help desk was available in two DHs and eight CHCs.
- Directional signage for Emergency, Departments and Utilities were displayed in five DHs, nine CHCs and 10 PHCs. Safety, hazard and caution signs were displayed prominently at relevant places in all test-checked DHs, nine CHCs and eight PHCs.
- Important contacts like higher medical centres, blood banks, fire department, police and ambulance services were displayed in all test-checked DHs, seven CHCs and seven PHCs. Mandatory information (under RTI Act, PNDT Act, etc.) was displayed in all test-checked DHs, seven CHCs and 11 PHCs.
- Further, adequate seating facility was not available in two CHCs and six PHCs. Patient Calling System (Digitalisation) was not available in two DHs and five CHCs. Separate toilets for males and females were not

available in nine PHCs. Poor condition of toilets is depicted in the pictures below:

**Condition of District Hospitals, Moga and Fatehgarh Sahib**

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.1.9 Patient satisfaction survey

As per NHM Assessor's Guidelines, OPD Patient satisfaction survey has to be done on a monthly basis.

Audit observed that patient satisfaction surveys for out-patients were conducted in DH Bathinda and DH Ludhiana[9] only. Thus, other test-checked hospitals did not comply with the NHM norms, thereby not availing the opportunity of eliciting the views of patients regarding out-patient services in respective hospitals.

Audit conducted a survey of doctors and patients selected on random basis during performance audit to get feedback from doctors and patients' satisfaction. The results are given in ***Appendix 3.1.***

For OPD services, 384 patients[10] were surveyed in selected health institutions (RH/DHs/CHCs/PHCs). The results are summarised below:

i. 54 *per cent* patients said that Enquiry/'May I Help' desk was not available with the competent staff.

ii. 16 *per cent* patients stated that seating arrangements were not adequate at registration/OPD counter.

iii. OPD hours for doctors and rate list were not displayed according to 48 *per cent* and 61 *per cent* patients respectively.

[9] Only in Gynaecology and Physiotherapy Departments of hospital during 2019-2021.

[10] RH Patiala: 45 patients; six DHs: 164 patients; 12 CHCs: 78 patients; and 24 PHCs: 97 patients.

iv. 25 *per cent* patients said that number of registration counters were not adequate in health institutions.

v. 35 *per cent* patients informed that patient calling system was not satisfactory.

vi. 42 *per cent* said that prescribed medicines were not made available to patients by health institution's pharmacy.

vii. 57 *per cent* (pathological tests) and 65 *per cent* (radiology tests) patients said that all tests recommended by the doctors were not done by the hospital.

viii. 63 *per cent* patients objected that complaint box was not available in test-checked health institutions.

The survey indicates that patient calling system, information display and availability of tests need improvement across the hospitals.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.1.10 Patients' rights and grievance redressal

As per IPHS 2012 norms, Citizens' Charter should be displayed at a proper place in the hospitals so that the patients are aware of their rights. For effective redressal of grievances of patients, there shall be provision of complaints/suggestion box in the hospital and a Hospital Management Committee for monitoring the grievance and as a quality assurance mechanism.

Audit noticed that no records of grievance redressal at OPD was maintained in any of the test-checked health institutions except in DH, Bathinda. However, complaint boxes were available in DHs, Bathinda, Hoshiarpur and Gurdaspur (out of six DHs) and four CHCs at Fatehgarh Churian, Naushera Majja Singh, Mahilpur and Shamchaurasi (out of 12 CHCs) during 2016-2021. Thus, in the absence of such records, it could not be verified whether these hospitals properly attended to the complaints of the patients.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.2 IPD Services

Indoor Patients Department (IPD) refers to the areas of the hospital where patients are accommodated after being admitted, based on doctor's/specialist's assessment, from the Outpatient Department, Emergency Services and Ambulatory Care. In-patients require a higher level of care through nursing services, availability of drugs/diagnostic facilities, observation by doctors, etc.

### 3.2.1 Availability of In-patient services

IPHS 2012 norms prescribe for various IPD services in each type of health institution *viz*. DHs [11], CHCs [12] and PHCs [13]. Further, minimum standard requirement for the Medical College Regulations, 1999 also provides that the IPD services should be available in all the clinical departments.

Audit observed that -

- All IPD services were found available in the selected DHs except Psychiatric services in DH Bathinda.
- In 12 selected CHCs, complete IPD services were not found except for General Medicine. IPD services in General Surgery was available only in CHCs Naushera Majja Singh, Sidhwan Bet and Sudhar. Paediatrics service was available in CHCs Sudhar and Amloh. However, Gynaecology and Obstetrics service was available in 10[14] CHCs.
- Out of 24 PHCs, IPD services were not available in eight[15] PHCs.

Further, out of 39 departments available in RH Patiala, the following OPD/IPD services were not functional:

***(i) Radiotherapy***: Despite availability of 30 beds ward, IPD services were not started due to shortage of required staff.

***(ii) Nephrology***: OPD/IPD and kidney transplantation facilities were not available at Rajindra Hospital, Patiala due to non-posting of Nephrologists. There were 3,919 cases of kidney patients during 2016-2021 who were provided dialysis services by doctors from the Department of Medicine.

***(iii) Neurosurgery***: Though space for Neuro OPD/IPD ward with 20 beds (**Image-A**) and Operation Theatre equipped with machine for neurosurgery facilities were available in super specialty building at Rajindra Hospital, Patiala, the Neurosurgery services were not operational due to non-posting of Neurosurgeon. However, one Assistant Professor was posted there during the period between August 2019 and October 2020 and 1,277 OPD patients were attended to but only three surgeries were performed in the old building during the said period.

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[11] General Medicine; General Surgery; Gynaecology & Obstetrics; Paediatrics; Dental care; Orthopaedics; Ophthalmology; and Psychiatry.

[12] General Medicine; General Surgery; Gynaecology & Obstetrics; and Paediatrics.

[13] Six-bedded IPD services.

[14] (i) Bhucho Mandi; (ii) Amloh; (iii) Fatehgarh Churian; (iv) Naushera Majja Singh; (v) Mahilpur; (vi) Shamchaurasi; (vii) Sidhwan Bet; (viii) Sudhar; (ix) Bagha Purana; and (x) Nihal Singh Wala.

[15] (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Ranjit Bagh; (v) Otalon; (vi) Sowaddi Kalan; (vii) Thathi Bhai; and (viii) Malianwala.

**Image-A: Neurosurgery Ward in Super Specialty Building of Rajindra Hospital, Patiala**

***(iv)*** **Neurology:** Neurology OPD/IPD service were not available, however, neurology patients were being attended to in the Medicine Department.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### *3.2.1.1 Availability of beds in IPD wards in DHs*

As per IPHS 2012 norms for District Hospitals (DH), IPD bed shall be categorised as General Medicine ward, Paediatrics ward, General Surgery ward, Ophthalmology ward, Accident and Trauma ward, etc. (requirement of beds in district hospitals varied from 100 to 300 beds). Availability of IPD beds in the test-checked DHs is given in **Table 3.4**.

**Table 3.4**: **Availability of IPD ward in test-checked DHs**

| Name of Ward | Requirement of beds as per IPHS | | DH Bathinda (200 beds) | DH Fatehgarh Sahib (100 beds) | DH Ludhiana (290 beds) | DH Gurdaspur (110 beds) | DH Hoshiarpur (200 beds) | DH Moga (150 beds) |
|---|---|---|---|---|---|---|---|---|
| | For 100 to 200 beds hospital | For 200 to 300 beds hospital | | | | | | |
| General Medicine | 30 | 50 | 89 | 30 | 30 | 45 | 50 | 30 |
| General Surgery | 30 | 45 | 50 | 30 | 30 | | 58 | 36 |
| Ophthalmology | 5 | 10 | 0 | 5 | 5 | 0 | 8 | 6 |
| Accident & Trauma | 10 | 10 | 15 | 10 | 10 | 10 | 8 | 22 |
| Paediatrics | 10 | 20 | 10 | 10 | 24 | 10 | 10 | 6 |
| Others | | | 36 | 15 | 191 | 45 | 66 | 50 |
| **Total** | | | 200 | 100 | 290 | 110 | 200 | 150 |

*Source: Information furnished by test-checked DHs*

***Colour Code:***

**Green depicts 'adequate number of beds in wards'**
**Yellow depicts 'short number of beds in wards'**
**Red depicts 'nil number of beds in wards'**

As per IPHS 2012 norms for DHs, allocation of beds for Ophthalmology ward was not made at DHs at Bathinda and Gurdaspur. In DH Ludhiana, only 65 beds were available against the requirement of 105 beds for General Medicine, General Surgery and Ophthalmology. Further, DHs Gurdaspur

allocated only 45 beds against the norms of 60 beds for General Medicine and General Surgery ward and in DH Hoshiarpur, only eight beds were allocated against the requirement of ten for Accident and Trauma ward.

The reply of the State Government was awaited (February 2024).

### 3.2.2 Availability of six beds in PHCs with Maternal and Child Health Care

Primary Health Centre is the cornerstone of rural health services - a first port of call to a qualified doctor of the public sector in rural areas for the sick and those who directly report or are referred from Sub-Centres for curative, preventive and promotive healthcare.

As per IPHS 2012 norms for PHCs, a typical PHC covers a population of 30,000 in plain areas with six indoor/observation beds. Intra-natal care: (24-hour delivery services both normal and assisted) should be available at PHCs. Availability of beds, labour service and operation theatre (optional) to facilitate conduct of selected surgical procedures (for e.g. vasectomy, tubectomy, hydrocelectomy, etc.) in the test-checked PHCs is given in **Table 3.5**.

**Table 3.5: Availability of labour service with beds and OT in test-checked PHCs**

| Name of District | Number of PHCs test-checked | Availability of beds | | Availability of labour service | | Availability of OT (for vasectomy, tubectomy, hydrocelectomy, etc.) |
|---|---|---|---|---|---|---|
| Bathinda | 4 | 3 | 1 | 3 | 1 | 0 |
| Fatehgarh Sahib | 4 | 3 | 1 | 2 | 2 | 0 |
| Gurdaspur | 4 | 3 | 1 | 3 | 1 | 0 |
| Hoshiarpur | 4 | 4 | | 4 | | 0 |
| Ludhiana | 4 | 2 | 2 | 2 | 2 | 0 |
| Moga | 4 | 2 | 2 | 2 | 2 | 0 |

*Source: Information furnished by test-checked PHCs*

***Colour Code:***

**Green depicts 'availability in number of PHCs'**
**Red depicts 'non-availability in number of PHCs'**

It is evident from the above table that:

- Out of 24 PHCs, seven PHCs[16] did not have a single bed, nine PHCs had the prescribed six beds and the remaining eight PHCs had less than six beds, as discussed in **Paragraph 5.3.3**. Labour service was also not available in these eight PHCs.
- OT facility was not available in any of the test-checked PHCs.

[16] (i) Jodhpur Pakhar; (ii) Nanowal; (iii) Ranjit Bagh; (iv) Otalon; (v) Sowaddi Kalan; (vi) Thathi Bhai; and (vii) Malianwala.

### 3.2.3 Availability of Isolation wards

As per IPHS 2012 norms and NHM Assessors' guidelines, the clinics for infectious and communicable diseases should be located in isolation, preferably, in remote corner, provided with independent access. An isolation room should be available in DHs. Ordinarily, negative air pressure isolation rooms are used as prevention rooms, while positive air pressure isolation rooms are used for protection. For patients who test positive for airborne illnesses, negative pressure isolation prevents contaminants from escaping from the room. Availability of Isolation rooms in test-checked Government Medical College and Hospital (GMCH) and DHs is given in **Table 3.6**.

**Table 3.6: Availability of Isolation wards**

| Name of hospital | Positive isolation room | Negative isolation room |
|---|---|---|
| DH Bathinda | N A | N A |
| DH Fatehgarh Sahib | N A | N A |
| DH Gurdaspur | A | A |
| DH Hoshiarpur | N A | N A |
| DH Ludhiana | N A | N A |
| DH Moga | N A | N A |
| RH Patiala | N A | N A |

*Source: Information furnished by test-checked RH/DHs*

***Colour code*: Green/A depicts 'availability' and Red/NA depicts 'non-availability'**

The above table shows that positive and negative isolation room was not available in any test-checked RH/DHs except DH Gurdaspur.

The reply of the State Government was awaited (February 2024).

### 3.2.4 Availability of surgeries

As per NHM Assessor's Guidebook, 2013 and IPHS 2012 norms for DH, surgeries related to General surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, ENT and Orthopaedics should be available at District Hospital. Further, as per IPHS norms for CHCs, CHCs should be able to provide care of routine and emergency cases in surgery. This includes dressings, incision and drainage, surgery for Hernia, Hydrocele, Appendicitis, Haemorrhoids, Fistula and stitching of injuries. It should also be able to handle emergencies like Intestinal Obstruction, Haemorrhage, etc. besides fracture reduction and putting splints/plaster cast. Further, as per IPHS for PHCs, operation theatre (optional) to facilitate conduct of selected surgical procedures (e.g. vasectomy, tubectomy, hydrocelectomy, etc.) should be available.

Major, minor and ENT surgeries were available in all test-checked DHs but paediatric surgery was not available in four DHs[17]. Availability of specific surgery procedures in the test-checked health institutions is given in **Table 3.7**.

**Table 3.7: Availability of surgical procedures in test-checked health institutions**

| Name of procedure (as per IPHS) | District Hospitals | | | | | | Out of 12 CHCs, available in |
|---|---|---|---|---|---|---|---|
| | Bathinda | Fatehgarh Sahib | Gurdaspur | Hoshiarpur | Ludhiana | Moga | |
| Hernia | A | A | A | A | A | A | 6 |
| Hydrocele | A | A | A | A | A | A | 5 |
| Appendicitis | A | A | A | A | A | A | 4 |
| Haemorrhoids | A | A | A | A | A | A | 6 |
| Fistula | A | A | A | A | A | A | 6 |
| Intestinal Obstruction | A | NA | NA | A | A | A | 3 |
| Haemorrhage | A | A | A | A | NA | A | 4 |
| Nasal packing | A | A | A | A | A | A | 4 |
| Tracheostomy | A | A | NA | NA | A | A | 2 |
| Foreign body removal | A | A | A | A | A | A | 3 |
| Fracture reduction | A | A | A | A | A | A | 3 |
| Putting splints/ plaster cast | A | A | A | A | A | A | 4 |

*Source: Information furnished by test-checked Health Institutions*
***Colour code*: Green/A depicts 'availability', Yellow depicts 'availability in some HIs', Red/NA depicts 'availability in few HIs and non-availability'**

The concerned DHs/CHCs stated that the specific procedure, as indicated in the table could not be provided due to non-availability of specialist surgeon/surgeon.

The reply of the State Government was awaited (February 2024).

### 3.2.5 Surgery load per surgeon

#### (a) Surgery load per surgeon in test-checked DHs

Audit analysed surgeries conducted per surgeon available in DHs and observed huge variations across hospitals during 2016-17 to 2021-22, as given in **Table 3.8.**

[17] DHs at (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Hoshiarpur; and (iv) Moga.

**Table 3.8: Average number of surgeries per surgeon**

| Name of Hospital | Year | General | | ENT | | Ortho | | Eye | | Total No. of surgeries conducted |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | |
| DH Bathinda | 2016-17 | 1 | 1,013 | 2 | 62 | 3 | 507 | 2 | 703 | 4,064 |
| | 2017-18 | 2 | 486 | 2 | 92 | 3 | 470 | 3 | 418 | 3,820 |
| | 2018-19 | 2 | 489 | 2 | 50 | 3 | 631 | 3 | 609 | 4,798 |
| | 2019-20 | 2 | 358 | 2 | 36 | 3 | 343 | 3 | 464 | 3,209 |
| | 2020-21 | 2 | 135 | 3 | 17 | 3 | 362 | 3 | 202 | 2,013 |
| | 2021-22 | 2 | 128 | 3 | 21 | 2 | 239 | 3 | 303 | 1,706 |
| | **Total** | **11** | **2,609** | **14** | **278** | **17** | **2,552** | **17** | **2,699** | **19,610** |
| DH Fatehgarh Sahib | 2016-17 | 2 | 89 | 1 | 15 | 3 | 110 | 2 | 123 | 769 |
| | 2017-18 | 2 | 130 | 1 | 25 | 2 | 173 | 2 | 89 | 809 |
| | 2018-19 | 2 | 202 | 1 | 87 | 1 | 340 | 1 | 127 | 958 |
| | 2019-20 | 2 | 111 | 1 | 4 | 2 | 123 | 2 | 58 | 588 |
| | 2020-21 | 2 | 161 | 2 | 0 | 2 | 143 | 2 | 188 | 984 |
| | 2021-22 | 2 | 193 | 1 | 117 | 2 | 164 | 3 | 236 | 1,539 |
| | **Total** | **12** | **886** | **7** | **248** | **12** | **1,053** | **12** | **821** | **5,647** |
| DH Gurdaspur | 2016-17 | 2 | NA | 1 | NA | 2 | NA | 1 | NA | NA |
| | 2017-18 | 2 | 551 | 1 | 0 | 2 | 243 | 1 | 484 | 2,072 |
| | 2018-19 | 2 | 509 | 1 | 0 | 2 | 276 | 1 | 466 | 2,036 |
| | 2019-20 | 2 | 517 | 1 | 56 | 2 | 307 | 1 | 480 | 2,184 |
| | 2020-21 | 2 | 386 | 1 | 79 | 2 | 191 | 1 | 282 | 1,515 |
| | 2021-22 | 2 | 392 | 1 | 82 | 2 | 246 | 1 | 324 | 1,682 |
| | **Total** | **12** | **2,355** | **6** | **217** | **12** | **1,263** | **6** | **2,036** | **9,489** |
| DH Hoshiarpur[18] | 2016-17 | 6 | 209 | | | 2 | 505 | | | 2,264 |
| | 2017-18 | 6 | 224 | | | 2 | 572 | | | 2,488 |
| | 2018-19 | 6 | 227 | | | 2 | 627 | | | 2,616 |
| | 2019-20 | 6 | 251 | | | 2 | 730 | | | 2,966 |
| | 2020-21 | 6 | 176 | | | 2 | 768 | | | 2,592 |
| | 2021-22 | 6 | 146 | | | 2 | 591 | | | 2,058 |
| | **Total** | **36** | **1,233** | | | **12** | **3,793** | | | **14,984** |
| DH Ludhiana | 2016-17 | 2 | 233 | 2 | 399 | 2 | 714 | 1 | 519 | 3,211 |
| | 2017-18 | 2 | 178 | 2 | 360 | 2 | 802 | 1 | 391 | 3,071 |
| | 2018-19 | 2 | 234 | 1 | 105 | 2 | 1034 | 1 | 326 | 2,967 |
| | 2019-20 | 2 | 144 | 1 | 416 | 2 | 934 | 1 | 251 | 2,823 |
| | 2020-21 | 2 | 37 | 1 | 87 | 2 | 250 | 1 | 110 | 771 |
| | 2021-22 | 2 | 51 | 1 | 50 | 2 | 553 | 1 | 383 | 1,641 |
| | **Total** | **12** | **877** | **8** | **1,417** | **12** | **4,287** | **6** | **1,980** | **14,484** |

[18] No separate records for ENT and Eye surgeries were maintained. Figures mentioned for general surgeries include ENT and Eye surgeries.

| Name of Hospital | Year | General | | ENT | | Ortho | | Eye | | Total No. of surgeries conducted |
|---|---|---|---|---|---|---|---|---|---|---|
| | | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | No. of surgeons | Average No. of surgeries | |
| DH Moga | 2016-17 | 2 | NA | 1 | NA | 1 | NA | 1 | NA | NA |
| | 2017-18 | 2 | NA | 1 | NA | 1 | NA | 1 | NA | NA |
| | 2018-19 | 2 | 195 | 1 | 86 | 1 | 438 | 1 | 403 | 1,317 |
| | 2019-20 | 2 | 178 | 1 | 93 | 1 | 403 | 1 | 300 | 1,152 |
| | 2020-21 | 2 | 118 | 0 | 6 | 1 | 250 | 1 | 87 | 573 |
| | 2021-22 | 2 | 69 | 1 | 9 | 1 | 262 | 1 | 185 | 594 |
| | **Total** | **12** | **560** | **5** | **194** | **6** | **1,353** | **6** | **975** | **3,636** |

*Source: Data furnished by test-checked DHs* *NA= Record not available*

***Colour code*: Green depicts 'good number of surgeries', Yellow depicts 'moderate' and Red depicts 'either no surgeries or very less'**

It can be seen from above table that excess surgeons against the sanctioned posts, as already mentioned in Chapter II, were posted in DH Bathinda which led to more surgeries in DH Bathinda than other DHs. In other DHs also except DH Ludhiana, although excess surgeons were posted against the sanctioned posts, the number of surgeries per surgeon has shown by and large a reducing trend indicating that services of surgeons were not being utilised optimally.

### 3.2.5(b) Surgery load per surgeon in test-checked CHCs

Audit analysed surgeries conducted per surgeon available in test-checked CHCs and observed huge variations across hospitals during 2016-17 to 2021-22 as depicted in ***Appendix 3.2***. Further, Audit observed that:

- In five CHCs (Mehraj, Shamchaurasi, Sidhwan Bet, Bagha Purana and Nihal Singh Wala), no surgeon was posted during 2016-17 to 2021-22, in two CHCs (Bhucho Mandi and Bassi Pathana), no surgeon was posted for four years i.e. from 2016-17 to 2019-20.
- No Gynaecologist was posted in four CHCs (Mehraj, Shamchaurasi, Bassi Pathana and Nihal Singh Wala), during 2016-17 to 2021-22; in CHC Bhaga Purana for four years; in CHC Bhucho Mandi for three years; in CHC Sidhwan Bet for two years; and in CHCs at Naushera Majja Singh and Mahilpur for one year.
- Number of surgeries per surgeon were by and large showing a reducing trend. However, in CHCs at Amloh, Fatehgarh Churian and Naushera Majja Singh, the number of surgeries as well as surgery per surgeon were more, as adequate number of surgeons were posted in these CHCs during the entire period.

The reply of the State Government was awaited (February 2024).

## 3.2.6 Operation Theatre

### *3.2.6.1 Availability of OT services in DHs*

Operation theatre (OT) is an essential service that is to be provided to the patients. IPHS 2012 norms for DHs prescribe OT for elective major surgery; emergency services; and ophthalmology/ENT for district hospitals. As per guidelines/Assessor's Guidebook for Quality Assurance for District Hospitals, OT should have convenient relationship with surgical ward, ICU, radiology, pathology, blood bank and Central Sterile Supply Department (CSSD). It should have access without any physical barrier, etc. The availability of various elements of quality OT services are detailed in **Table 3.9.**

**Table 3.9: Availability of OT services in test-checked DHs**

| Description | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|
| OT has convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD. | No | No | Yes | Yes | Yes | No |
| Access to facility is provided without any physical barrier and friendly to people with disabilities. | Yes | Yes | Yes | Yes | Yes | Yes |
| OT has piped suction and medical gases, electric supply, heating, air-conditioning, ventilation. | No* | Yes | No* | Yes | Yes | No* |
| Patient's records and clinical information is maintained. | Yes | Yes | Yes | Yes | Yes | Yes |
| Is defined and established grievance redressal system in place? | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether all equipment are covered under AMC including preventive maintenance? | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether the facility has established procedure for internal and external calibration of measuring equipment? | Yes | Yes | Yes | No | Yes | Yes |

*Source: Information furnished by test-checked DHs*

* *Except for electric supply.*

***Colour code:***

**Yes= Available**
**No=Not available**

From the above, it was observed that convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD did not exist in DHs at Bathinda, Fatehgarh Sahib and Moga. Disabled friendly access and maintenance of patient's records and clinical information was being ensured by all the test-checked hospitals. OT had piped suction and medical gases, electric supply, heating, air-conditioning and ventilation in three[19] DHs only. Procedure for internal and external calibration of measuring equipment

[19] DHs at (i) Fatehgarh Sahib; (ii) Hoshiarpur; and (iii) Ludhiana.

was established by all the test-checked DHs except DH Hoshiarpur. Other facilities mentioned in the table were available in all test-checked DHs.

#### *3.2.6.2 Availability of OT services in CHCs*

As per IPHS 2012 norms and Assessor's Guidebook for Quality Assurance in CHCs, an operation theatre for providing General Surgery, Obstetrics and Gynaecology, Accident and Emergency Services, etc. should be available in a CHC.
Scrutiny of information in respect of OT services in 12 test-checked CHCs revealed that:

- In CHC Bassi Pathana, OT was not available.
- In CHCs at Mehraj, Bagha Purana and Nihal Singh Wala, OT was available but not functional due to non-posting of surgeons. However, OT at CHC Shamchaurasi was started from July 2022.

#### *3.2.6.3 Availability of OT services in PHCs*

IPHS 2012 norms for PHCs provide that to facilitate conducting selected surgical procedures (e.g. vasectomy, tubectomy, hydrocelectomy, etc.), an operation theatre should be available in a PHC.

Out of 24 test-checked PHCs, in 22 PHCs OT was not available. However, in two PHCs (Dhianpur and Mand Bhander), OT was available but not functional due to non-availability of surgeons. Thus, OT services were not available in any of the test-checked PHCs.

The reply of the State Government was awaited (February 2024).

### 3.2.7 Evaluation of IPD services through Outcome Indicators

The IPD services can be evaluated through Outcome Indicators *viz.* Bed Occupancy Rate (BOR)[20], Bed Turnover Rate (BTR)[21], Discharge Rate (DR)[22],

[20] BOR is an indicator of the productivity of the hospital services and is a measure of verifying whether the available infrastructure and processes are adequate for delivery of health services. As per IPHS, BOR of hospitals should be at least 80 *per cent*.

[21] BTR is the rate of usage of beds in an in-patient department in a given period and is a measure of the utilisation of the available bed capacity and serves as an indicator of the efficiency of the hospital. High BTR indicates high utilisation of the in-patient beds in a department while low BTR could be due to fewer patient admissions or longer duration of stay in the departments.

[22] Discharge rate measures the number of patients leaving a hospital after receiving due healthcare. High discharge rate denotes that the hospital is providing healthcare facilities to the patients efficiently and on the other hand, low rate of discharge means that the healthcare facilities were not adequate.

Referral Out Rate (ROR)[23], Average Length of Stay (ALoS)[24], Left Against Medical Advice (LAMA)[25] Rate and Absconding Rate[26].

**Bed Occupancy Rate of DHs and CHCs:**

As per IPHS 2012 norms, average BOR of district hospitals should be at least 80 *per cent* and the average BOR of CHCs will be 60 *per cent*.

Details of BOR of the test-checked DHs and CHCs for the period 2016-2022 is shown in **Table 3.10.**

**Table 3.10: Details of BOR of test-checked DHs**

| Name of Hospital | Number of beds available | Average Bed Occupancy Rate | | | | | | | Average of BOR |
|---|---|---|---|---|---|---|---|---|---|
| | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | |
| DH Bathinda | 200 | 106 | 141 | 149 | 158 | 116 | 91 | 130 | 127 |
| DH Fatehgarh Sahib | 100 | 92 | 100 | 83 | 70 | 57 | 65 | 85 | 79 |
| DH Gurdaspur | 110 | 225 | 217 | 177 | 159 | 104 | 115 | 128 | 161 |
| DH Hoshiarpur | 200 | 83 | 83 | 78 | 83 | 69 | 69 | 69 | 76 |
| DH Ludhiana | 290 | 132 | 135 | 76 | 82 | 85 | 89 | 101 | 100 |
| DH Moga | 150 | 240 | 231 | 188 | 164 | 144 | 91 | 105 | 166 |

*Source: Information furnished by PHSC*

***Colour code*: Green depicts 'good performance', Yellow depicts 'poor performance' and Red depicts 'High BOR (Over-burdened infrastructure)'**

**Table 3.10** shows that BOR of all the test-checked DHs were above 80 *per cent* except DHs at Fatehgarh Sahib and Hoshiarpur wherein BOR was as per norms. Higher BOR at DHs indicates inadequate number of beds against requirement in these DHs, as pointed out in **Paragraph 5.3.2.**

**Table 3.11: Details of BOR of the test-checked CHCs**

| District | Name of CHC | Number of beds available | Average Bed Occupancy Rate | | | | | | | Average of BOR |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | |
| Bathinda | Bhucho Mandi | 30 | 16 | 13 | 17 | 18 | 15 | 19 | 47 | 21 |
| | Mehraj | 19 | 30 | 18 | 48 | 17 | 11 | 3 | 5 | 19 |
| Fatehgarh Sahib | Bassi Pathana | 30 | 27 | 29 | 25 | 27 | 31 | 30 | 36 | 29 |
| | Amloh | 30 | 84 | 85 | 72 | 70 | 48 | 57 | 70 | 69 |

[23] ROR denotes referral to higher centres as the facilities for treatment were not available in the hospital.

[24] ALoS is an indicator of clinical care capability and to determine effectiveness of interventions. ALoS is the time between the admission and discharge/death of the patient.

[25] LAMA is the term used for a patient who leaves the hospital against the advice of the doctor.

[26] Absconding Rate refers to patients who leave the hospital without informing the hospital authorities.

| District | Name of CHC | Number of beds available | Average Bed Occupancy Rate | | | | | | | Average of BOR |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | |
| Gurdaspur | Fatehgarh Churian | 30 | 93 | 90 | 96 | 100 | 89 | 77 | 86 | 90 |
| | N M Singh | 30 | 25 | 16 | 23 | 33 | 32 | 37 | 42 | 30 |
| Hoshiarpur | Mahilpur | 24 | 57 | 58 | 50 | 67 | 65 | 72 | 62 | 62 |
| | Shamchaurasi | 24 | 20 | 18 | 17 | 19 | 15 | 25 | 50 | 23 |
| Ludhiana | Sidhwan Bet | 30 | 54 | 47 | 80 | 70 | 65 | 67 | 64 | 64 |
| | Sudhar | 30 | 67 | 53 | 51 | 44 | 37 | 51 | 31 | 48 |
| Moga | Bagha Purana | 25 | 24 | 38 | 17 | 24 | 13 | 15 | 27 | 23 |
| | Nihal Singh Wala | 25 | 46 | 51 | 52 | 68 | 77 | 13 | 25 | 47 |

*Source: Information furnished by PHSC*

***Colour code*: Green depicts 'good performance', Yellow depicts 'poor performance' and Red depicts 'High BOR (Over-burdened infrastructure)'**

The above table shows that in eight CHCs (Bhucho Mandi, Mehraj, Bassi Pathana, N M Singh, Shamchaurasi, Sudhar, Bagha Purana and Nihal Singh Wala), BOR was much below than 60 *per cent* which indicated poor productivity of these CHCs. However, in CHC Fatehgarh Churian, BOR was significantly high which represents that 30 beds were also inadequate.

The performance of IPD services through Outcome Indicators in the test-checked DH/RH is detailed in **Table 3.12.**

**Table 3.12: Outcome indicators of IPD services at DHs/RH**

| Name of Hospital | Average Bed Turn Over Rate | Discharge Rate (%) | Average Referral Out Rate (%) | Average length of stay (No. of Days) | LAMA Rate (%) | Absconding Rate (%) |
|---|---|---|---|---|---|---|
| DH Bathinda | 6.84 | 57.91 | 5.93 | 3.39 | 7.49 | 5.88 |
| DH Fatehgarh Sahib | 1.83 | 59.39 | 5.76 | 3.92 | 14.30 | 15.95 |
| DH Gurdaspur | 11.31 | 88.18 | 10.24 | 3.74 | 12.06 | 2.09 |
| DH Hoshiarpur | 7.10 | 51.41 | 4.07 | 3.40 | 4.00 | 1.05 |
| DH Ludhiana | 7.45 | 72.52 | 6.02 | 2.73 | 13.15 | 3.09 |
| DH Moga | 11.91 | 86.58 | 5.33 | 3.14 | 6.47 | 2.23 |
| RH Patiala | 3.94 | NA | NA | 8.47 | 8.14 | 0.56 |

*Source: Information furnished by test-checked RH/DHs* *NA= Information not made available*

**Colour code: Green depicts 'good performance', Yellow 'moderate performance' and Red depicts 'poor performance'**

It was observed that:

- Efficiency of the hospital as indicated by BTR was found on lower side in DHs Fatehgarh Sahib and RH Patiala and higher side in DHs Gurdaspur and Moga.
- Discharge rate varied between 51 *per cent* and 88 *per cent* and was lower in DHs at Bathinda, Fatehgarh Sahib and Hoshiarpur indicating that these hospitals were under-performing.

- ROR in DH Gurdaspur was on the higher side which indicated that healthcare facilities were not adequate in this hospital.
- LAMA rate varied between 4 *per cent* and 14 *per cent* and was alarmingly high in DHs Fatehgarh Sahib, Gurdaspur and Ludhiana, whereas absconding rate varied between 1 *per cent* and 16 *per cent* and was alarmingly high in DHs Fatehgarh Sahib.

The performance of the IPD services through Outcome Indicators in test-checked CHCs is detailed in **Table 3.13.**

**Table 3.13: Outcome indicators of IPD services at CHCs**

| Name of District | Name of Health Facility (CHC) | Average Bed Turn Over Rate | Discharge Rate (%) | Average Referral Out Rate (%) | Average length of stay (No. of Days) | LAMA Rate (%) | Absconding Rate (%) |
|---|---|---|---|---|---|---|---|
| Bathinda | Bhucho Mandi | 12.96 | 95.00 | 4.04 | 1.44 | 2.88 | 0.00 |
| | Mehraj | 2.91 | 100.00 | 0.00 | 1.83 | 0.00 | 0.00 |
| Fatehgarh Sahib | Bassi Pathana | 1.42 | 51.98 | 20.94 | 3.49 | 9.62 | 16.21 |
| | Amloh | 4.30 | 72.83 | 5.63 | 6.66 | 0.82 | 1.73 |
| Gurdaspur | Fatehgarh Churian | 4.74 | 82.79 | 6.45 | 3.83 | 2.25 | 0.78 |
| | N M Singh | 3.71 | 95.39 | 5.13 | 2.54 | 0.36 | 0.00 |
| Hoshiarpur | Mahilpur | 4.67 | 61.95 | 19.22 | 2.57 | 11.80 | 10.07 |
| | Shamchaurasi | 2.33 | 90.63 | 0.00 | 2.24 | 0.00 | 0.26 |
| Ludhiana | Sidhwan Bet | 2.47 | 83.81 | 8.47 | 2.27 | 8.63 | 0.00 |
| | Sudhar | 2.59 | 69.91 | 12.08 | 4.05 | 6.82 | 1.76 |
| Moga | Bagha Purana | 3.95 | 95.85 | 2.37 | 1.29 | 3.16 | 0.00 |
| | Nihal Singh Wala | 2.60 | 84.16 | 7.53 | 2.72 | 8.30 | 0.00 |

*Source: Information furnished by test-checked Health Institutions*

***Colour code*: Green depicts 'good performance', yellow depicts 'moderate performance' and red depicts 'poor performance'**

It was observed that:

- BTR in six[27] CHCs was very poor as it was only between one and three. This represented that the productivity of these CHCs was much below the norms.
- However, BTR in CHC Bhucho Mandi was 13 which implied strain on resources of CHC.
- Out of 12 CHCs, discharge rate varied between 52 *per cent* and 100 *percent* and was substantially low in CHCs Bassi Pathana (52 *per cent*), Mahilpur (62 *per cent*), Amloh (73 *per cent*) and Sudhar (70 *per cent*) against the benchmark of 82 *per cent* which indicated that these CHCs were under-performing.

[27] (i) Mehraj; (ii) Bassi Pathana; (iii) Shamchaurasi; (iv) Sidhwan Bet; (v) Sudhar; and (vi) Nihal Singh Wala.

- Amongst 12 CHCs, ROR[28] varied between zero and 21 *per cent* and was substantially high in CHCs Bassi Pathana (21 *per cent*) and Mahilpur (19 *per cent*) which indicated that the healthcare facilities were not adequate in these CHCs.

- Average Length of Stay (ALoS)[29] in CHCs varied between one and seven days and was high in CHCs Amloh (seven days) and Sudhar (four days), whereas that of Bhucho Mandi (one), Bagha Purana (one) and Mehraj (two) was very low.

- In test-checked CHCs, Leave Against Medical Advice (LAMA) varied between zero and 12 *per cent* and Absconding Rate was between zero and 16 *per cent*. The rates were substantially high in CHCs Bassi Pathana and Mahilpur (LAMA: 10 *per cent* and 12 *per cent;* and Absconding Rate: 16 *per cent* and 10 *per cent*), during 2016-2021.

Performance of the test-checked CHCs was not satisfactory in respect of the above outcome indicators, which could be attributed to shortage of specialist doctors, equipment, pathology services, OT services and complete IPD services, as pointed out in **Paragraphs 2.5.2.1, 3.2.1, 3.2.6.2, 3.6.2.2 and 4.2.2** respectively**.**

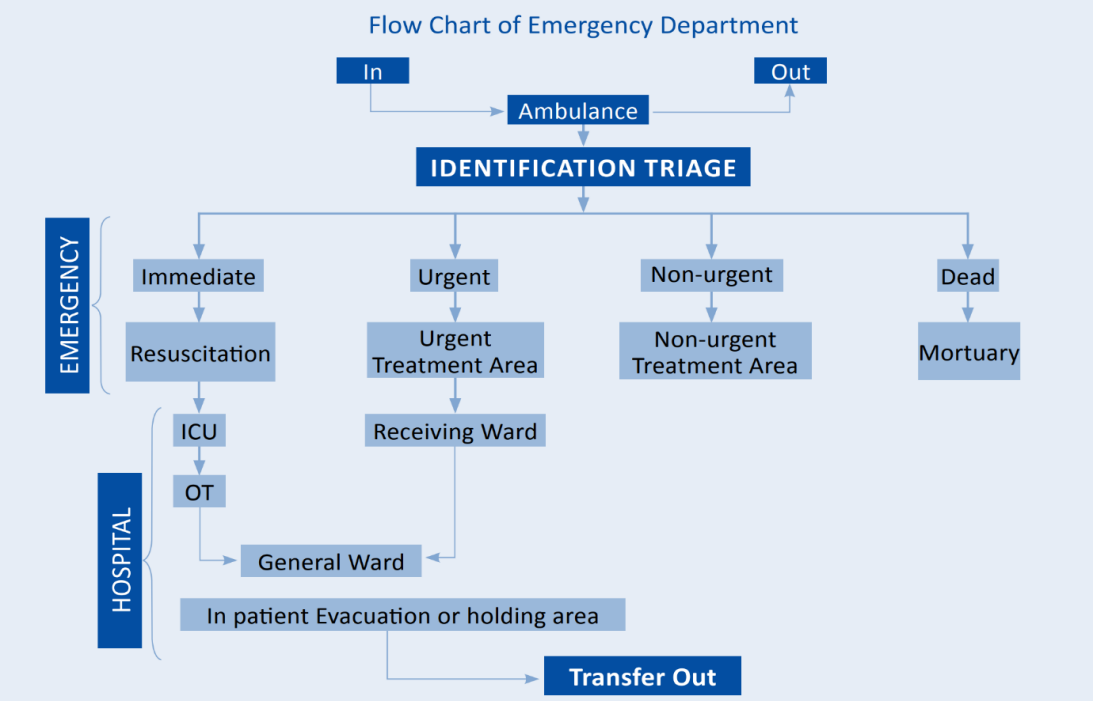
On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

## 3.3 Emergency Services

Emergency Department is the first point of contact for any critically ill patient needing immediate medical attention. Due to the unplanned nature of patient attendance, the Department must provide initial treatment for a broad spectrum of illnesses and injuries, some of which may be life-threatening and require immediate attention. Flow chart of Emergency Department is given below:

[28] Referral Out Rate: Total patients referred during the month x 100/total patients admitted.

[29] Average Length of Stay (ALoS): Total patient bed days in the month excluding newborn/discharges in the month including death, LAMA and absconding.




### 3.3.1 Availability of emergency services

As per IPHS 2012 norms for DHs, 24x7 operational emergency with dedicated emergency room shall be available with adequate manpower. Emergency shall have dedicated triage, resuscitation and observation area. Separate provision for examination of rape/sexual assault victim should be made available in the emergency as per guidelines of the Supreme Court.

Emergency should have mobile X-ray/laboratory, side labs/plaster room and minor OT facilities. Besides, separate emergency beds may be provided. Sufficient separate waiting areas and public amenities for patients and relative should be located in such a way that it does not disturb functioning of emergency services.

As per NHM Assessor's Guidebook 2013, the hospital should provide orthopaedics services by ensuring availability of emergency orthopaedic procedures. Further, there should be an established procedure for admission of patients and emergency department should be aware of admission criteria to critical care units like ICU, SNCU, burn cases, etc. Emergency protocols should be defined and implemented for head injury, snake bite, poisoning, etc. The facility should have disaster management plan in place.

During test-check of records, it was noticed that emergency care services were available in all six test-checked DHs and RH, Patiala. The status of emergency services in test-checked hospitals is given in **Table 3.14.**

**Table 3.14: Availability of emergency services in test-checked hospitals**

| Particulars | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Hoshiarpur | DH Ludhiana | DH Gurdaspur | DH Moga |
|---|---|---|---|---|---|---|---|
| Availability and functioning of Emergency OT | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of infrastructure hospital (Emergency Ward) | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of infrastructure relating to Trauma Ward such as bed capacity, machinery & equipment, etc. | Yes | Yes | No | Yes | No | Yes | Yes |
| Availability of triage procedure to sort patients | No | Yes | Yes | Yes | No | Yes | Yes |
| Availability of surgical facilities for emergency Appendectomy | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability to diagnose and to treat Hypoglycemia, Ketosis and Coma | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of assault injuries/bowel injuries/head injuries/stab injuries /multiple injuries/ perforation/intestinal obstruction | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of emergency laboratory services | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of blood bank in close proximity to emergency department | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of mobile X-ray/ laboratory, side labs/plaster room in accident and emergency service | Yes | Yes | Yes | Yes/only X-ray & Lab | Yes | Yes | Yes |
| Availability of emergency operation theatre for maternity, orthopaedic emergency, burns and plastic surgery and neurosurgery cases round the clock | Yes* | No | Yes* | Yes* | No | No | No |
| Availability of facilities for accidents and emergency services including poisoning and trauma care | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of separate provision of emergency ward for examination of rape/sexual assault victim | No | Yes | Yes | No | No | Yes | Yes |
| Availability of sufficient separate waiting areas and public amenities in emergency ward for patients and relatives | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of emergency protocols in emergency ward | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Availability of disaster management plan in emergency ward | No | Yes | Yes | Yes | Yes | Yes | Yes |

*Source: Information furnished by test-checked GMCH/DHs*
** Except for Neurosurgery.*

***Colour Code: Green depicts 'availability' and Red depicts 'non-availability'***

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.3.2 Availability of routine and emergency care in CHCs

As per IPHS 2012 norms for CHCs, CHCs should provide care of routine and emergency cases in medicine. Specific mention is made of handling of emergencies like dengue haemorrhagic fever, cerebral malaria and others like dog and snake bite cases, poisonings, congestive heart failure, left ventricular failure, pneumonias, meningoencephalitis, acute respiratory conditions, status epilepticus, burns, shock, acute dehydration, etc. Further, essential and emergency obstetric care including surgical interventions like caesarean sections and other medical interventions should be available. The availability of care of routine and emergency cases in Medicine in CHCs is detailed in **Table 3.15.**

**Table 3.15: Availability of routine and emergency cases in Medicine in CHCs**

| Name of district | Bathinda | Fatehgarh Sahib | Gurdaspur | Hoshiarpur | Ludhiana | Moga |
|---|---|---|---|---|---|---|
| Name of Routine and Emergency care service | No. of test-checked CHCs(02) | No. of test-checked CHCs(02) | No. of test-checked CHCs(02) | No. of test-checked CHCs(02) | No. of test-checked CHCs(02) | No. of test-checked CHCs(02) |
| Dengue haemorrhagic fever | 0 | 0 | 1 | 2 | 0 | 2 |
| Cerebral malaria | 0 | 1 | 1 | 1 | 0 | 0 |
| Dog and snake bite cases | 1 | 2 | 2 | 2 | 2 | 2 |
| Poisonings | 0 | 2 | 2 | 1 | 1 | 1 |
| Congestive heart failure | 0 | 1 | 0 | 0 | 1 | 1 |
| Left ventricular failure | 0 | 1 | 0 | 0 | 0 | 0 |
| Pneumonia | 0 | 1 | 2 | 1 | 1 | 1 |
| Meningoencephalitis | 0 | 1 | 0 | 0 | 0 | 0 |
| Acute respiratory conditions | 1 | 2 | 2 | 2 | 1 | 2 |
| Status epilepticus | 0 | 2 | 2 | 0 | 1 | 2 |
| Burns | 0 | 1 | 1 | 1 | 1 | 2 |
| Shock | 0 | 2 | 2 | 1 | 1 | 1 |
| Acute dehydration | 1 | 2 | 2 | 2 | 2 | 2 |
| Obstetric care including surgical interventions like caesarean sections and other medical interventions | 0 | 1 | 2 | 2 | 2 | 0 |

*Source: Information furnished by test-checked CHCs*

***Colour code:***

| Available | Partially available | Non-available |
|---|---|---|

Further, out of 12 CHCs, emergency care services in CHC Mehraj were not available.

Non-availability of emergency services in violation of the norms *ibid* would lead to denial of patient care in emergent situation.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### 3.3.3 Management of emergency cases in PHCs

As per IPHS 2012 norms for PHCs, 24 hours emergency services such as appropriate management of injuries and accident, first aid, stitching of wounds, incision and drainage of abscess, stabilisation of the condition of the patient before referral, dog bite/snake bite/scorpion bite cases and other emergency conditions should be provided in PHCs. These services are to be provided primarily by the nursing staff. However, in case of need, Medical Officer may be available to attend to emergencies on call basis. Intra-natal care: 24-hour delivery services both normal and assisted including appropriate and prompt referral for cases needing specialist care should be ensured.

**Table 3.16: Availability of emergency services in PHCs**

| Name of District | Number of test-checked PHCs | 24 hours management of selected emergency services | Emergency on call basis, 24-hour normal delivery services and referral |
|---|---|---|---|
| Bathinda | 4 | 1 | 2 |
| Fatehgarh Sahib | 4 | 1 | 2 |
| Gurdaspur | 4 | 2 | 2 |
| Hoshiarpur | 4 | 3 | 4 |
| Ludhiana | 4 | 0 | 1 |
| Moga | 4 | 1 | 1 |
| **Total** | **24** | **8** | **12** |

*Source: Information furnished by test-checked CHCs*

***Colour code*: Green depicts 'mostly available', Yellow depicts 'partial available' and Red depicts 'least/not available'**

Facility of 24 hours management of selected emergency services was available in eight PHCs. Emergency on call basis, 24-hour normal delivery services and referral services were available in 12 out of 24 test-checked PHCs. Only in one district – Hoshiarpur – emergency on call basis, 24 hours normal delivery services and referral were available in all four PHCs and 24 hours management of selected emergency services were available in three PHCs. Further, five PHCs without Medical Officers and three PHCs without Staff Nurses were operational, as discussed in **Paragraph 2.5.5.1** of **Chapter II**.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### 3.3.4 Non-availability of Intensive Care Unit

As per IPHS 2012 norms for District Hospitals, in ICU, critically ill patients requiring highly skilled lifesaving medical aid and nursing care are concentrated. These should include major surgical and medical cases, head

injuries, severe haemorrhage, acute coronary occlusion, kidney and respiratory catastrophe, poisoning, etc. It should be the ultimate medical care the hospital can provide with highly specialised staff and equipment. The number of patients requiring intensive care may be about 5 to 10 *per cent* of total medical and surgical patients in a hospital. The unit shall not have less than 4 beds nor more than 12 beds. Number of beds may be restricted to 5 *per cent* of the total bed strength initially but should be expanded to 10 *per cent* gradually. Out of these, they can be equally divided among ICU and High Dependency Wards. As per NHM Assessors' guidelines, the hospital should also provide intensive care service as part of curative services.

None of the test-checked District Hospitals had ICU services except for DH, Gurdaspur wherein all the above said services were available but nursing staff required as per the norms of the Indian Nursing Council for these services were inadequate i.e. one nurse is required for each bed in ICU (shortage of nurses discussed in **Chapter-II**). The bed-to-nurse ratio in Shift-I was 5:1 and in Shifts-II and III, it was 10:1. Further details of other facilities and equipment in ICU at DH Gurdaspur were as under:

**Table 3.17: Availability of ICU services in DH Gurdaspur**

| Particulars | Availability |
|---|---|
| Availability of various types of ICU services as prescribed by National standards | Available# |
| Functional in-patient beds in ICU | 10 ICU beds |
| Percentage of patients admitted in ICU who were monitored for fluid/electrolyte charting | Fluid: 100 *per cent*<br>Electrolyte: 100 *per cent* |
| Percentage of patients admitted in ICU who were monitored for intake and output charting | 100 *per cent* |
| Percentage of patients admitted in ICU who were monitored for cardiac care monitoring | 100 *per cent* |
| Availability of ICU ventilators | Not available |
| Facilities for curative services in ICU | Available |
| Facilities for diagnostic services in ICU | Available |
| User charges displayed in local and simple language and communicated to patients effectively | Available |
| Availability of adequate space and waiting area for ICU as per requirement | Available |
| Nutritional assessment of patient as required and directed by doctor | Not done |

*Source: Information furnished by DH, Gurdaspur*
*# ABG, Portable X-ray, ECO investigation was not available.*
***Colour code:*** **Green depicts 'availability', Yellow depicts 'partial availability' and Red depicts 'non-availability'**

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### *3.3.4.1 ICU services in RH Patiala*

Minimum Standard Requirements for the Medical College Regulations, 2010 (For 200 admissions annually) provide that there shall be a well-equipped and updated Intensive Care Unit (ICU), Intensive Coronary Care Unit (ICCU),

Paediatric/Neonatal Intensive Care Unit (PICU/NICU) having five beds in each. ICU should be located near casualty. Further, one nurse is required to be deployed on each ICU bed.

Audit noticed that:

- There was a significant shortage of 81 nurses against the requirement of 141 nurses[30] in ICU, ICCU and NICU.
- PICU was not functional in RH Patiala during the period 2016-2021.

Thus, substantial shortage of required nurses in ICUs could affect the quality healthcare services to the patients admitted there.

The hospital authority while admitting the facts stated (June 2022) that PICU was started in May 2022 and efforts would be made to get additional staff as per norms.

### 3.3.5 Emergency cases referred to other hospitals

The NHM Assessor's Guidebook for Quality Assurance, 2013 prescribe that in case a patient is referred to a higher-level hospital, the hospital authorities are required to inform in advance about the referral to the higher-level hospital. It further provides that the hospital authorities should follow-up with the treatment of the referred patient.

The position of total patients admitted in emergency of test-checked GMCH (RH Patiala)/DHs and referred to higher institutions during the selected months[31] is detailed in **Table 3.18.**

**Table 3.18: Position of patients referred to higher facility**

| Sr. No. | Name of GMCH/DHs | Total admission in emergency in selected months | Patients referred to higher facility (percentage) |
|---|---|---|---|
| 1. | Bathinda | 3,600 | 415 (12) |
| 2. | Fatehgarh Sahib | 659 | 22 (3) |
| 3. | Gurdaspur | 1,420 | 229 (16) |
| 4. | Hoshiarpur | 4,825 | 299 (6) |
| 5. | Ludhiana | 6,153 | 292 (5) |
| 6. | Moga | 4,473 | 332 (7) |
| 7. | RH Patiala | 10,395 | 699 (7) |
| **Total** | | **31,525** | **2,288 (7)** |

*Source: Test-checked hospitals*

*Note: Records of six months in respect of referred patients were not maintained by four DHs*[32].

***Colour code*: Green depicts 'good performance', Yellow depicts 'moderate' and red depicts 'poor performance'**

**Table 3.18** shows that out of 31,525 patients admitted in emergency, 2,288 cases (7 *per cent*) were referred to higher institutions during the selected period. The referral of patients to other/higher institutions in two DHs *viz.*

[30] 47 available beds (ICU: 14, ICCU: 13 and NICU: 20) X three shifts (one for each shift).

[31] November 2016; February 2018; May 2018; August 2019; and November 2020.

[32] DHs (i) Fatehgarh Sahib (November 2016, February 2018 and May 2018); (ii) Gurdaspur (November 2016); (iii) Hoshiarpur (November 2016); and (iv) Moga (November 2016).

Bathinda (12 *per cent*) and Gurdaspur (16 *per cent*) was higher than that of other selected hospitals. Even RH Patiala had also referred seven *per cent* of the patients to other health institutions. Similarly, out of 7,672 patients admitted in emergency of 11 test-checked CHCs[33] (out of 12 CHCs), as many as 1,103 patients (14 *per cent*) were referred to higher/other institutions during the selected period. However, these institutions neither intimated referral linkages in advance nor were the patients followed up. This indicated that the provisions of emergency services were not sufficient in these health institutions keeping in view the other peer institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

## 3.4 Emergency Response and Health System Preparedness

COVID-19 is the disease caused by a new coronavirus called the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The most common symptoms of COVID-19 are fever, dry cough, fatigue and other symptoms that are less common and may affect some patients which include loss of taste or smell, nasal congestion, conjunctivitis (also known as red eyes), sore throat, headache, muscle or joint pain, different types of skin rash, nausea or vomiting, diarrhoea, chills or dizziness. Symptoms of severe COVID-19 disease include shortness of breath, loss of appetite, confusion, persistent pain or pressure in the chest and high temperature. The time from exposure to COVID-19 to the moment when symptoms begin is, on an average, 5-6 days and can range from 1-14 days.

COVID-19 can spread by breathing in air carrying droplets or aerosol particles that contain the SARS-CoV-2 virus when close to an infected person or in poorly ventilated spaces with infected persons, by having droplets and particles that contain the SARS-CoV-2 virus land on the eyes, nose, or mouth– especially through splashes and sprays like a cough or sneeze and by touching the eyes, nose, or mouth with hands that have the SARS-CoV-2 virus particles on them.

Audit reviewed the Emergency Response to COVID-19 by the State and the lessons learnt for future preparedness.

### 3.4.1 Fund utilisation under COVID-19 in the State and test-checked districts

The Government of India provided funds under Emergency COVID Response Package (ECRP) to the State in order to support preparedness and prevention related activities due to COVID-19 outbreak. The receipt and expenditure under ECRP is shown in **Table 3.19**.

[33] Records were not provided by CHC Nihal Singh Wala.

**Table 3.19: Utilisation of funds under COVID-19**

*(₹ in crore)*

| EMERGENCY COVID RELIEF PACKAGE | | | |
|---|---|---|---|
| **Year** | **Funds provided by** | | **Expenditure incurred** |
| | **GoI** | **State Government** | |
| **2019-20** | 40.82 | 27.21 | 68.03 |
| **2020-21** | 165.28 | 0 | 161.38 |
| **2021-22** | 204.55 | 0 | 204.55 |
| **Total** | **410.65** | **27.21** | **433.96** |

*Source: Departmental information*

Further, funds were also provided under the State Disaster Response Fund and Chief Minister's COVID-19 Relief Fund to manage the pandemic as under:

***(₹ in crore)***

| Year | Opening Balance | Budget allotted during the year | Amount withdrawn from treasury | Expenditure incurred | Closing Balance | Utilisation certificate submitted |
|---|---|---|---|---|---|---|
| **STATE DISASTER RESPONSE FUND** | | | | | | |
| **Department of Health and Family Welfare** | | | | | | |
| 2019-20 | 0.00 | 50.00 | 50.00 | 8.40 | 41.60 | |
| 2020-21 | 41.60 | 265.71 | 265.71 | 273.72 | 33.59 | |
| 2021-22 | 33.59 | 255.36 | 255.36 | 286.25 | 2.70 | 500.23 |
| **Total (A)** | | **571.07** | **571.07** | **568.37** | | **500.23** |
| **Department of Medical Education and Research** | | | | | | |
| 2019-20 | 0.00 | 4.39 | 4.39 | 4.39 | 0.00 | 0.00 |
| 2020-21 | 0.00 | 263.99 | 127.30 | 116.45 | 10.85 | 73.90 |
| **Total (B)** | | **268.38** | **131.69** | **120.84** | | **73.90** |
| **Total (A+B)** | | **839.45** | **702.76** | **689.21** | | **574.13** |
| **CHIEF MINISTER COVID-19 RELIEF FUND** | | | | | | |
| **Year** | | **Funds received** | | **Expenditure incurred** | | |
| **2020-21** | | 25.76 | | 25.76 | | |

*Source: Departmental information*

Audit noticed that the funds were utilised on various components *viz.* Drugs/Consumables/Diagnostics, Human Resources, Equipment/Facilities for Patient Care Services, IT Software and Hardware, Information, Education and Communication (IEC) Activities and Training, COVID Care Kits and Pulse Oximeters, Civil Works, Equipment, etc. Out of the total funds of ₹ 839.45 crore provided under SDRF during the year 2019-2022, an amount of ₹ 702.76 crore was withdrawn from the treasury for further transfer to different authorities (Deputy Commissioners of the districts, Civil Surgeons, National Health Mission, Punjab Health Systems Corporation, etc.). However, utilisation certificates for expenditure of ₹ 574.13 crore only were forwarded by the Department of Health and Family Welfare (DH&FW) and Department of Medical Education and Research (DMER) to the State Government. Besides, ₹ 25.76 crore were also spent out of the Chief Minister's Relief Fund.

Funds utilisation in test-checked RH Patiala and five districts (except district Moga[34]) under COVID-19 are shown in **Table 3.20**.

**Table 3.20: Fund utilisation in test-checked RH Patiala and districts except Moga under COVID-19**

*(₹ in lakh)*

| District | 2019-20 | | 2020-21 | | 2021-22 | |
|---|---|---|---|---|---|---|
| | Receipt | Expenditure | Receipt | Expenditure | Receipt | Expenditure |
| Bathinda | 10.00 | 0.00 | 355.66 | 364.86 | 252.94 | 249.99 |
| Fatehgarh Sahib | 0.00 | 0.00 | 10.00 | 10.00 | 5.00 | 5.00 |
| Gurdaspur | 10.00 | 10.00 | 10.00 | 10.00 | 286.00 | 151.00 |
| Hoshiarpur | 10.00 | 0.00 | 146.64 | 125.17 | 177.71 | 158.36 |
| Ludhiana | 10.00 | 0.00 | 95.00 | 104.02 | 0.00 | 0.00 |
| RH Patiala | 0.00 | 0.00 | 2,006.96 | 1,283.47 | 1,155.30 | 1,148.03 |
| **Total** | **40.00** | **10.00** | **2,624.26** | **1,897.52** | **1,876.95** | **1,712.38** |

*Source: Information furnished by the test-checked districts*

Funds amounting to ₹4,541.21 lakh (₹40.00 lakh in 2019-20, ₹2,624.26 lakh in 2020-21 and ₹1,876.95 lakh in 2021-22) were released to five selected Civil Surgeons (except District Moga) and RH Patiala during the period 2019-2022. Out of ₹4,541.21 lakh, the selected five districts and RH Patiala incurred an expenditure of ₹3,619.90 lakh (₹10.00 lakh in 2019-20, ₹1,897.52 lakh in 2020-21 and ₹1,712.38 lakh in 2021-22) for COVID-19 management.

The reply of the State Government was awaited (February 2024).

### 3.4.2 Availability of oxygen and drugs for COVID-19 in health institutions

#### *3.4.2.1 Availability of oxygen*

Rule 45 of the Static and Mobile Pressure Vessels (Unfired) Rules, 2015 provides that no person shall store any compressed gas in any vessel except under and in accordance with the conditions of a license granted under these rules. Further, Rule 55 provides that a license granted under these rules may be renewed by the Chief Controller or Controller authorised by him and the license may be renewed for a maximum period of five years where there has been no contravention of the Act or the Rules framed thereunder or of any conditions of the license so renewed.

Audit noticed that Petroleum and Explosive Safety Organisation (PESO) Ministry of Commerce and Industry, GoI granted permission (November 2013 and valid up to March 2016) to Rajindra Hospital (RH), Patiala under Static and Mobile Pressure Vessels (Unfired) Rules, 1981, for storage of 6,100 Kgs of Liquid Medical Oxygen (LMO).

However, RH Patiala kept on storing LMO even after the expiry of license. The supplier agency of LMO stopped the supply of LMO in November 2020 citing expired license as the reason. Later on, RH Patiala got the license renewed in April 2021, having validity thereof till September 2025, with enhanced storage capacity of 27,267 kg. Accordingly, after renewal of license,

[34] District Moga did not provide record/information.

the supply of LMO was resumed in April 2021. Due to non-renewal of license for storage of LMO, supply of oxygen to the patients was being made through oxygen cylinders during the COVID-19 period from November 2020 to April 2021. Audit noticed that owing to COVID-19 pandemic, the prices of oxygen cylinders were on higher side as compared to LMO. Had the license been renewed in time, an excess expenditure of ₹0.70 crore (as detailed in **Table 3.21**) incurred on purchase of cylinders could have been avoided.

**Table 3.21: Details of excess expenditure on purchase of oxygen cylinders**

| Sr.No. | Description | Excess expenditure |
|---|---|---|
| 1. | No. of **A type** cylinders purchased | 04 |
| 2. | Volume of oxygen supplied through **A type** cylinders (0.70 $m^3$ per cylinder) | 4X0.70 =2.8 cubic meter |
| 3. | No. of **B type** cylinders purchased | 1,958 |
| 4. | Volume of oxygen supplied through **B type** cylinders (1.5 $m^3$ per cylinder) | 1,958X1.5= 2,937 cubic meter |
| 5. | No. of **D type** cylinders purchased | 84,278 |
| 6. | Volume of oxygen supplied through **D type** cylinders (7.0 $m^3$ per cylinder) | 84,278X7.0=5,89,946 cubic meter |
| 7. | Total volume of oxygen supplied by cylinders (Rounded off total of 2+4+6) | 5,92,886 cubic meters |
| 8. | Total amount of funds spent in supply of oxygen through cylinders | ₹ 1,69,50,359 |
| 9. | Cost of LMO as per approved rate contract (if LMO could be purchased instead of cylinders) (₹ 16.80 x 5,92,886 cubic meter) | ₹ 99,60,485 |
| | **Difference (8-9)** | **₹ 69,89,874** |

*Source: Records of RH Patiala*

On being pointed out, the Department admitted (December 2022) the facts in the exit conference. Thus, lack of timely action by RH Patiala in renewal of license led to excess expenditure on purchase of oxygen cylinders during the period of COVID-19.

### *3.4.2.2 Non-availability of drugs for COVID-19*

The Department of Health and Family Welfare, Government of Punjab issued (June 2021) Clinical Management Protocol of COVID-19 patients and directed all the Civil Surgeons/Medical Superintendents to follow the protocol at all isolation facilities. The Protocol also prescribed medicines required for treatment of COVID-19 at Dedicated Covid Health Centres (10 drugs) and Dedicated Covid Hospitals (11 drugs).

Accordingly, availability of COVID-19 drugs in health institutions (RH Patiala and DHs) during the period June 2021 to March 2022 was checked and following shortcomings were noticed:

(i) In RH, Patiala (Dedicated Covid Hospital), out of 11 prescribed drugs only four drugs (Remdesivir, Antimicrobials, Enoxaparin 40 mg, Inj. Tocilizumab) were available throughout the period whereas remaining seven drugs (Paracetamol, Antitussives, Vitamin C, Vitamin D, Budesonide,

Ivermectin, Intravenous dexamethasone) were available partially with stock out period ranging between 7 and 294 days.

(ii) In six test-checked DHs, availability of COVID-19 drugs was as follows:

**Table 3.22: Availability of COVID-19 drugs in test-checked Health Institutions**

| Name of Health Institution | Total number of drugs recommended | Numbers of drugs available | Numbers of drugs not available | Number of drugs partially available | Stock out period of partially available drugs (in days) |
|---|---|---|---|---|---|
| DH Bathinda | 10 | 9 | 1 | 0 | - |
| DH Fatehgarh Sahib | 10 | 9 | 0 | 1 | 92 |
| DH Gurdaspur | 10 | 5 | 2 | 3 | 4 to 288 |
| DH Hoshiarpur | 10 | 10 | 0 | 0 | - |
| DH Ludhiana | 10 | 2 | 1 | 7 | 3 to 169 |
| DH Moga | 10 | 7 | 0 | 3 | 61 to 303 |

*Source: Departmental data*

Analysis of data/information supplied by the DHs revealed that all prescribed drugs for treatment of COVID-19 patients were not available throughout the period in five districts except DH Hoshiarpur. In four DHs, one to seven drugs were partially available with stock out period ranging between 3 and 303 days.

On being pointed out in audit (January 2023), the Medical Superintendent, RH Patiala stated that no demand was raised from COVID-19 cell. No reply was furnished by DHs.

## 3.5 Maternity Services

Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are important indicators of the quality of maternity services available. As per the Sample Registration System Report of Registrar General of India, MMR for Punjab was 129 during the year 2016-2018, compared to 113 at the National level. Further, as per National Family Health Survey-5, IMR was 28.0 for Punjab, compared to 35.2 at the National Level during the year 2019-2021.

On being enquired about the reasons for higher MMR, the Department stated (December 2022) that the underlying cause for most of the maternal deaths was associated with anaemia and the Department had directed the districts to treat anaemic pregnant women at the time of detection itself.

Antenatal care (ANC), Intra-partum care (IPC) or delivery care and Postnatal care (PNC) are the major components of facility based maternity services. ANC is the systemic supervision of women during pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus. Under IPC, interventions for safe delivery in labour room and operation theatre are performed. PNC includes medical care of the mother and newborn after delivery of the child especially during 48 hours post-delivery, which are considered critical.

Norms for provisioning of various maternal health services for different levels of hospitals and CHCs have been specified in the Maternal and Newborn Health Toolkit, 2013 (MNH Toolkit), Guidelines for Antenatal Care and Skilled Attendance at Birth, 2010 and IPHS norms prescribed by GoI for delivery of quality maternal health services.

### 3.5.1 Achievement of required four antenatal check-ups (ANC) and delivery of iron folic acids (IFA) tablets and tetanus toxoid (TT) to pregnant women

ANC involves general and abdominal examination and laboratory investigations to monitor pregnancies, management of complications, such as Reproductive Tract Infection (RTI)/Sexually Transmitted Infection (STI) and comprehensive abortion care. Antenatal Care and Skilled Attendance at Birth, 2010 Guidelines, stipulate that every pregnant woman should undergo general and abdominal examinations during each ANC visit.

Module I of above guidelines, provides that it should be ensured that every pregnant woman makes at least four visits for ANC, including the first visit/registration. It should be emphasised that this is only a minimum requirement and that more visits may be necessary, depending on the woman's condition and needs. The suggested schedule for antenatal visits is:

1st visit: Within 12 weeks—preferably as soon as pregnancy is suspected, for registration of pregnancy and first antenatal check-up; 2nd visit: between 14 and 26 weeks; 3rd visit: between 28 and 34 weeks; and 4th visit: between 36 weeks and term.

Further, all pregnant women need to be given one tablet of iron folic acid (IFA: 100 mg elemental iron and 0.5 mg folic acid) every day for at least 100 days and full course of 180 days, starting after the first trimester, at 14-16 weeks of gestation. IFA dose is given to prevent anaemia (prophylactic dose) and this dosage regimen is to be repeated for three months post-partum. Further, as per National Immunisation Schedule, Tetanus Toxoid (TT), TT-1 should be provided early in pregnancy and TT-2 after 4 weeks of TT-1.

The percentage of pregnant women registered and ANC, TT, and IFA tablets provided in the State of Punjab as per NFHS-5 is given in **Table 3.23.**

**Table 3.23: Indicators of Antenatal Care, TT administration and IFA tablets in the State**

*(In per cent)*

| Indicators | 2015-16 | 2019-2021 |
|---|---|---|
| ANC received in the first trimester | 75.6 | 68.5 |
| Pregnant women who received at least four ANC | 68.5 | 59.3 |
| TT administration | 92.9 | 89.7 |
| IFA (180 days) | 19.9 | 40.5 |

*Source: NFHS-5 Survey Report*

***Colour code*: Green depicts 'satisfactory performance' and red depicts 'poor performance'**

It is evident from the above table that mothers who had antenatal check-up in the first trimester (%) has gone down from 75.6 *per cent in* 2015-16 to 68.5 *per cent* in 2019-2021. Similarly, mothers who had at least four antenatal care visits during their pregnancy has also gone down from 68.5 *per cent* to 59.3 *per cent* and mothers whose last birth was protected against neonatal tetanus has also gone down from 92.9 to 89.7. However, there is an improvement in delivery of iron folic acid during the period 2015-16 to 2019-21 but it remains only at 40.5 *per cent* of pregnant women.

The reply of the State Government was awaited (February 2024).

### 3.5.2 Institutional deliveries in public hospitals and private hospitals

Position of institutional deliveries in public hospitals and private hospitals in the State during 2016-2022 is given in **Table 3.24.**

**Table 3.24: Number of institutional deliveries (ID) conducted in public hospitals and private hospitals during 2016-2022**

| Year | Total deliveries conducted | Total IDs (percentage of total deliveries) | IDs at public healthcare facilities | | IDs at private healthcare facilities | | Home deliveries |
|---|---|---|---|---|---|---|---|
| | | | Deliveries conducted | Percentage of total IDs | Deliveries conducted | Percentage of total IDs | |
| **1** | **2** | **3** | **4** | **5** | **6 (3-4)** | **7** | **8 (2-3)** |
| 2016-17 | 3,82,445 | 3,63,803 (95) | 1,99,732 | 55 | 1,64,071 | 45 | 18,642 |
| 2017-18 | 3,74,779 | 3,62,658 (97) | 1,93,328 | 53 | 1,69,330 | 47 | 12,121 |
| 2018-19 | 3,72,882 | 3,64,177 (98) | 1,87,024 | 51 | 1,77,153 | 49 | 8,705 |
| 2019-20 | 3,79,150 | 3,73,687 (99) | 1,86,942 | 50 | 1,86,745 | 50 | 5,463 |
| 2020-21 | 3,59,679 | 3,54,547 (99) | 1,64,504 | 46 | 1,90,043 | 54 | 5,132 |
| 2021-22 | 3,73,469 | 3,69,816 (99) | 1,61,940 | 44 | 2,07,876 | 56 | 3,653 |
| **Total** | **22,42,404** | **21,88,688 (98)** | **10,93,470** | **50** | **10,95,218** | **50** | **53,716** |

*Source: Data provided by SHS, Punjab and DHS*

From the above table, it was observed that:

- Out of total deliveries, the *percentage* of pregnant women opting for institutional delivery was ranging from 95 to 99 *per cent* in the State during 2016-2022. The increasing trend of institutional deliveries is more or less similar to NFHS-5 (94.3 in 2019-2021) and NITI Aayog's SDG India Index (98.5 in 2020-21), as discussed in **Chapters I and IX** respectively.
- Out of the total 21.89 lakh reported institutional deliveries, only 10.93 lakh deliveries (50 *per cent*) were performed in Government health institutions.
- Though out of total deliveries reported, there was an increase of four *per cent* (95 *per cent* to 99 *per cent*) in institutional deliveries during 2021-22 over the institutional deliveries during 2016-17 in the State, the increase in institutional deliveries in private institutions was

11 *per cent* (45 *per cent* to 56 *per cent*) showing preference for deliveries in the private hospitals.

- The percentage of institutional deliveries in Government hospitals continuously decreased year after year during 2016-2022. In Punjab State, 189 Gynaecologists and 161 Paediatricians were found posted against the sanctioned strength of 355 and 361 respectively, resulting in shortage of 166 Gynaecologists (47 *per cent*) and 200 Paediatricians (55 *per cent*) in the Department of Health and Family Welfare, Punjab. This may be a major reason for increasing percentage of deliveries in private health institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that for providing mother and child health (MCH) services, building of better infrastructure was being focused on and by the end of 2024, Punjab would have 45 fully functional MCH wings which would lead to increase in percentage of institutional deliveries in the public sector.

The facilities for institutional deliveries in test-checked districts was not as per the requirement, as discussed in the succeeding paragraphs.

#### *3.5.2.1 Maternity and Child care service in DHs and availability of Beds*

Under NHM, Mother and Child Wings should be established in District Hospitals to overcome the constraints of increasing case loads and institutional deliveries at these facilities. Further, Assessor's Guidebook for Quality Assurance provides that adequate number of beds in DHs should be available as per delivery load i.e. 10 beds for 100 deliveries per month.

Scrutiny of records revealed that maternity and child care service was available in all DHs. However, in four[35] DHs, shortage of beds in maternity ward ranged between 9 *per cent* and 29 *per cent,* which indicated that adequate beds were not available in these DHs to provide maternity and child care service.

#### *3.5.2.2 Labour room facilities in CHCs/PHCs*

As per IPHS 2012 norms, labour room should be available in CHC/PHC. Availability of labour room facility in the test-checked CHCs/ PHCs is given below:

**Table 3.25: Availability of Labour Room in test-checked CHCs/PHCs**

| Type of health institution (HI) | Total number of HIs | Availability of labour room in HIs |
|---|---|---|
| **CHCs** | 12 | 12 |
| **PHCs** | 24 | 16 |

*Source: Information furnished by test-checked Health Institutions*

**Colour code: Green depicts 'availability' and Yellow depicts 'partial availability'**

[35] DHs at (i) Sangrur (29 *per cent*); (ii) Pathankot (17 *per cent*); (iii) Malerkotla (9 *per cent*); and (iv) Fazilka (9 *per cent*).

Labour room was available in all the selected CHCs. Out of 24 test-checked PHCs, labour room was not available in eight[36] PHCs.

### *3.5.2.3 Pathological investigations*

ANC Guidelines, 2010 prescribe conducting six pathological investigations, depending upon the condition of pregnancy during ANC visits to identify pregnancy related complications. Availability of pathological investigations for pregnant women in the test-checked health institutions is given in **Table 3.26**.

**Table 3.26: Availability of pathological investigations for pregnant women in test-checked Health Institutions**

| Name of Test | DHs (6) | CHCs (12) |
|---|---|---|
| Blood group including Rh factor | 6 | 12 |
| Venereal Disease Research Laboratory (VDRL)/Rapid Plasma Reagin (RPR) | 5 | 12 |
| HIV testing | 5 | 12 |
| Rapid Malaria test | 4 | 6 |
| Blood Sugar testing | 6 | 12 |
| Hepatitis B surface Antigen (HBsAg) | 6 | 12 |

*Source: Information furnished by test-checked Health Institutions*

***Colour code*: Green depicts 'availability' and Yellow depicts 'partial availability'**

Audit observed that all pathological investigations related to pregnancy were conducted in all the test-checked DHs except Venereal Disease Research Laboratory/Rapid Plasma Reagin, HIV testing and Rapid Malaria test in DH Bathinda and Rapid Malaria test in DH Moga.

Further, it was observed that out of the six prescribed pathological investigations, six[37] CHCs had facilities for all the tests. Six[38] CHCs had five pathological facilities but Rapid Malaria Test was not available.

### *3.5.2.4 Caesarean deliveries (C-Section)*

MNH Toolkit designated all FRU-CHCs/DHs as Centres for providing surgical (C-Section) services with the provision of specialised human resources (Gynaecologist/Obstetrician and Anaesthetist) and equipped operation theatre to provide Emergency Obstetric Care (EmOC) to pregnant women. The Janani Shishu Suraksha Karyakram (JSSK) entitles all pregnant women to C-Section services with a provision for free drugs, consumables,

[36] (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Ranjit Bagh; (v) Otalon; (vi) Sowaddi Kalan; (vii) Mallianwala; and (viii) Thathi Bhai.

[37] (i) Bhucho Mandi; (ii) Bassi Pathana; (iii) Fatehgarh Sahib; (iv) Naushera Majha Singh; (v) Shamchaurasi; and (vi) Sudhar.

[38] (i) Mehraj; (ii) Amloh; (iii) Mahilpur; (iv) Sidhwan Bet; (v) Bagha Purana; and (vi) Nihal Singh Wala.

diagnostics, etc. The status of C-section deliveries as per NFHS-5 in the State of Punjab is given in **Table 3.27**.

**Table 3.27: Status of caesarean deliveries (C-Section) in the State**

| Indicators | 2015-16 *(In percentage)* | 2019-2021 *(In percentage)* |
|---|---|---|
| C-section deliveries | 24.6 | 38.5 |
| Private health facility C-section deliveries | 39.7 | 55.5 |
| Public health facility C-section deliveries | 17.8 | 29.9 |

*Source: NFHS-5 Survey Report*

***Colour code*: Red depicts 'high number of C-section deliveries' and Yellow depicts 'satisfactory number of C-section deliveries'**

It is evident from the above table that C-section deliveries have increased from 24.6 *per cent* in 2015-16 to 38.5 *per cent* in 2019-21 in the State of Punjab. But the increase in rate of C-section deliveries was seen more at private health facilities (55.5 *per cent*) as compared to public health facilities (29.9 *per cent*). Further, WHO also suggests that caesarean sections are effective in saving maternal and infant lives, but only when they are required for medically indicated reasons. At population level, caesarean section rates higher than 10 *per cent* are not associated with reductions in maternal and newborn mortality rates.

Position of C-section deliveries conducted in public healthcare facilities and private healthcare facilities in the State during 2016-17 to 2021-22 is given in **Table 3.28**.

**Table 3.28: Number and percentage of C-Section deliveries conducted in public hospitals and private hospitals in the State**

| Year | Public Healthcare Facilities | | | | Private Healthcare Facilities | | | |
|---|---|---|---|---|---|---|---|---|
| | Normal delivery | C section | Total | Percentage of C-Section | Normal delivery | C-Section | Total | Percentage of C-Section |
| 2016-17 | 1,47,459 | 52,273 | 1,99,732 | 26 | 1,11,824 | 52,247 | 1,64,071 | 32 |
| 2017-18 | 1,42,030 | 51,298 | 1,93,328 | 27 | 92,138 | 77,192 | 1,69,330 | 46 |
| 2018-19 | 1,36,312 | 50,712 | 1,87,024 | 27 | 92,792 | 84,361 | 1,77,153 | 48 |
| 2019-20 | 1,33,932 | 53,010 | 1,86,942 | 28 | 92,854 | 93,891 | 1,86,745 | 50 |
| 2020-21 | 1,14,765 | 49,739 | 1,64,504 | 30 | 91,563 | 98,480 | 1,90,043 | 52 |
| 2021-22 | 1,12,639 | 49,301 | 1,61,940 | 30 | 96,599 | 1,11,277 | 2,07,876 | 54 |
| **Total** | **7,87,137** | **3,06,333** | **10,93,470** | **28** | **5,77,770** | **5,17,448** | **10,95,218** | **47** |

*Source: Departmental data*

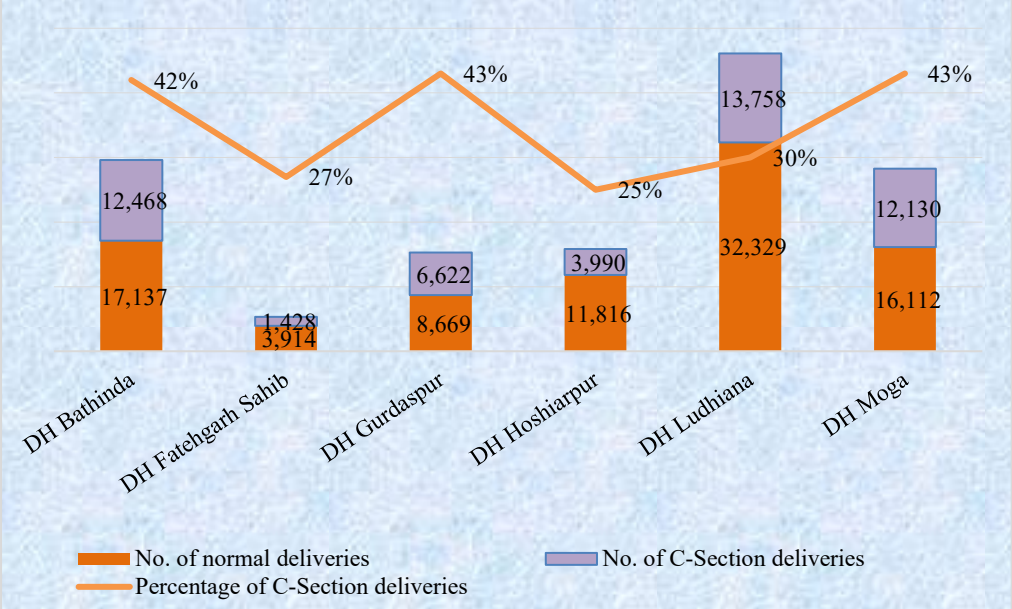
***Colour code*: Red depicts high number of C section deliveries and above the norms**

Audit observed that out of 21.89 lakh total institutional deliveries in the State, 8.23 lakh C-Section deliveries (37.60 *per cent*) were performed during 2016-2022 i.e. the proportion of deliveries performed through C-Section was much higher during the period 2016-2022. In public healthcare facilities in the State, out of 10.93 lakh total institutional deliveries, 3.06 lakh deliveries were performed through C-section which was 28 *per cent* of total institutional

deliveries. Moreover, in private healthcare facilities in the State, out of 10.95 lakh institutional deliveries, 5.17 lakh deliveries were performed through C-Section which was 47 *per cent of* total institutional deliveries. The deliveries performed through C-Section in public and private healthcare institutions was on an increasing trend ranging from 26 *per cent* to 30 *per cent* and 32 *per cent* to 54 *per cent* respectively**.**

Position of C-section deliveries conducted in the test-checked six DHs during 2016-17 to 2021-22 is given in **Chart 3.5**.

**Chart 3.5: Number and percentage of C-Section deliveries conducted in test-checked DHs during 2016-2022**




*Source: Information furnished by test-checked DHs*

It was observed that:

- The average percentage of C-Section deliveries was 42 *per cent* in DH Bathinda, 27 *per cent* in DH Fatehgarh Sahib, 43 *per cent* in DH Gurdaspur, 25 *per cent* in DH Hoshiarpur, 30 *per cent* in DH Ludhiana and 43 *per cent* in DH Moga.

- The percentage of C-Section deliveries was higher in DH Moga and it ranged between 39 *per cent* and 52 *per cent* during 2016-2022; in DH Gurdaspur, it ranged between 33 *per cent* and 48 *per cent* and in DH Bathinda it ranged between 38 *per cent* and 46 *per cent*. Further, in remaining three [39] DHs, the percentage of C-Section deliveries ranged between 17 *per cent* and 34 *per cent* during 2016-2022.

[39] (i) Fatehgarh Sahib; (ii) Hoshiarpur; and (iii) Ludhiana.

- In RH Patiala, five [40] DHs, 12 CHCs and 16 [41] PHCs, out of 7,620 test-checked delivery cases, partographs[42] were plotted in only 1,910 cases (25 *per cent*) during 2016-2021.

The reply of the State Government was awaited (February 2024).

### 3.5.3 Special New-born Care Unit

As per MNH Toolkit and IPHS 2012 norms, twelve bedded Special Newborn Care Unit (SNCU) is essential to treat critically ill newborns in a district hospital.

Audit observed that out of six test-checked DHs, SNCU facility was not available in DH Fatehgarh Sahib and data regarding SNCU facility was not provided by DH Bathinda.

Total admission, referral rate, LAMA rate, absconding rate, and neonatal death rate in the remaining four[43] test-checked DHs is given in **Table 3.29**.

**Table 3.29: Evaluation of SNCU services in test-checked DHs through Outcome Indicators**

| Name of health facility | Year | Total admissions in SNCU | Referral rate | LAMA rate | Absconding rate | Neonatal death rate |
|---|---|---|---|---|---|---|
| DH Gurdaspur | 2016-17 | 850 | 8.24 | 4.47 | 0 | 0.71 |
| | 2017-18 | 615 | 6.83 | 4.88 | 0 | 1.30 |
| | 2018-19 | 1,024 | 7.03 | 4.88 | 0 | 0.49 |
| | 2019-20 | 667 | 11.09 | 3.75 | 0 | 1.05 |
| | 2020-21 | 847 | 8.62 | 3.31 | 0 | 0.47 |
| | 2021-22 | 1,122 | 4.28 | 4.63 | 0 | 0.45 |
| | **Total** | **5,125** | **7.40** | **4.35** | **0** | **0.68** |
| DH Hoshiarpur | 2016-17 | Data not provided | | | | |
| | 2017-18 | 1,036 | 4.92 | 8.20 | 1.93 | 3.38 |
| | 2018-19 | 856 | 8.29 | 7.94 | 2.45 | 1.64 |
| | 2019-20 | 918 | 8.82 | 9.15 | 2.51 | 1.96 |
| | 2020-21 | 898 | 8.02 | 4.57 | 2.34 | 1.56 |
| | 2021-22 | 697 | 25.25 | 4.88 | 1.15 | 1.43 |
| | **Total** | **4,405** | **10.24** | **7.08** | **2.11** | **2.07** |
| DH Ludhiana | 2016-17 | 1,440 | 11.60 | 9.65 | 0.21 | 4.65 |
| | 2017-18 | 1,322 | 13.39 | 11.80 | 0.30 | 3.33 |
| | 2018-19 | 1,320 | 14.32 | 19.70 | 0.00 | 2.95 |
| | 2019-20 | 1,347 | 13.21 | 19.52 | 2.38 | 4.08 |
| | 2020-21 | 1,190 | 15.21 | 10.59 | 1.76 | 3.87 |
| | 2021-22 | 1,650 | 19.33 | 9.39 | 1.15 | 2.61 |
| | **Total** | **8,269** | **14.65** | **13.29** | **0.96** | **3.56** |

[40] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Ludhiana; and (v) Moga. IPD files were not provided by DH Hoshiarpur.

[41] (i) Mandi Kalan; (ii) Bhai Rupa; (iii) Lehra Mohabbat; (iv) Sanghol; (v) Nandpur Kalour; (vi) Behrampur; (vii) Dorangla; (viii) Dhianpur; (ix) Chakowal; (x) Paldi; (xi) Possi; (xii) Mand Bhander; (xiii) Ghawaddi; (xiv) Mansuran; (xv) Patto Hira Singh; and (xvi) Sukhanand.

[42] A partograph or portogram is a composite graphical record of key data (maternal and fetal) during labour entered against time on a single sheet of paper.

[43] (i) Gurdaspur; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.

| Name of health facility | Year | Total admissions in SNCU | Referral rate | LAMA rate | Absconding rate | Neonatal death rate |
|---|---|---|---|---|---|---|
| DH Moga | 2016-17 | Data not provided | | | | |
| | 2017-18 | 681 | 15.71 | 3.38 | 0.15 | 4.11 |
| | 2018-19 | 662 | 17.82 | 3.93 | 0.30 | 2.72 |
| | 2019-20 | 784 | 21.43 | 4.59 | 0.38 | 0.77 |
| | 2020-21 | 798 | 13.91 | 6.14 | 0.13 | 0.75 |
| | 2021-22 | 1,009 | 16.45 | 7.53 | 1.78 | 1.39 |
| | **Total** | **3,934** | **17.03** | **5.34** | **0.64** | **1.83** |

*Source: Information furnished by test-checked DHs*

**Colour code: Green depicts 'good performance', Yellow depicts 'satisfactory performance' and Red depicts 'poor performance'**

It is evident from the above table that:

i. In DH Gurdaspur, a total of 5,125 cases were admitted in SNCU during the period 2016-2022. The rate of referral cases ranged between 4.28 *per cent* and 11.09 *per cent*, LAMA rate ranged between 3.31 *per cent* and 4.88 *per cent* and neonatal death rate ranged between 0.45 *per cent* and 1.30 *per cent* during the same period.

ii. In DH Hoshiarpur, a total of 4,405 cases were admitted in SNCU during the period 2017-2022. Data for the period 2016-17 was not available. The rate of referral cases ranged between 4.92 *per cent* and 25.25 *per cent*, LAMA rate ranged between 4.57 *per cent* and 9.15 *per cent* and neonatal death rate ranged between 1.43 and 3.38 *per cent* during the period 2017-2022.

iii. In DH Ludhiana, a total of 8,269 cases were admitted in SNCU during the period 2016-2022. The rate of referral cases ranged between 11.60 *per cent* and 19.33 *per cent*, LAMA rate ranged between 9.39 *per cent* and 19.70 *per cent* and neonatal death rate ranged between 2.61 *per cent* and 4.65 *per cent* during the period 2016-2022.

iv. In DH Moga, total number of 3,934 cases were admitted in SNCU during the period 2017-2022. Data for the period 2016-17 was not available. The rate of referral cases ranged between 13.91 *per cent* and 21.43 *per cent*, LAMA rate ranged between 3.38 *per cent* and 7.53 *per cent* and neonatal death rate ranged between 0.75 *per cent* and 4.11 *per cent* during the same period.

Higher rates of referrals, LAMA, Absconding and Neonatal deaths could be attributed to short availability of SNCU equipment, which ranged between 37 *per cent* and 85 *per cent* in test-checked DHs, as mentioned in **Paragraph 4.2.**

### *3.5.3.1 Lack of Human Resources in SNCU*

As per Facility Based Newborn Care Operational Guide, 2011 a 12-bedded SNCU requires at least one Paediatrician or a trained doctor round the clock. It is proposed that one Paediatrician trained in neonatology should be posted at the unit, supported by two or three medical officers trained in Facility Based Newborn Care. Such a unit will also require three nurses in each shift round the clock. Audit observed the following:

(i) DH Hoshiarpur was having SNCU with 9 beds whereas DHs at Ludhiana and Moga were having SNCU with 10 beds each against the requirement of 12 beds.

(ii) No Paediatrician/trained doctor was available round the clock in SNCUs; Paediatrician was available in morning shifts only and on call basis in evenings and night shifts. This could be attributed to shortage of Paediatricians in four out of five test-checked DHs, as discussed in **Paragraph 2.5.1.3.**

(iii) In two DHs (Bathinda and Gurdaspur), against the requirement of three nurses in each shift, only two nurses in morning and one nurse in evening as well as in night shift was available. In the remaining three DHs (Hoshiarpur, Ludhiana and Moga), only one nurse was available in each shift against the requirement of three nurses.

Non-availability of Paediatricians/trained doctors round the clock and short availability of nurses could be one of the reasons for higher referrals.

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that the State was regularly working on closing the HR gaps.

### *3.5.3.2 Non-availability of drugs in SNCU*

Audit observed that against 17 prescribed drugs as per NHM Assessor's Guidebook, 3 to 15 drugs were not available in SNCU of five[44] DHs during 2016-2021.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### *3.5.3.3 Kangaroo Mother Care*

Government of India issued (September 2014) Operational Guidelines of Kangaroo Mother Care and Optimal Feeding of Low Birth Weight Infants, to give a clear idea to service providers on what exactly Kangaroo Mother Care (KMC) is and how KMC techniques can be implemented when caring for low

[44] (i) Bathinda; (ii) Gurdaspur; (iii) Hoshiarpur; (iv) Ludhiana; and (v) Moga.

birth weight infants to help in reducing neonatal mortality. KMC is a low resource, evidence based, high impact intervention and standardised care for low birth weight[45] infants which, like breastfeeding, should be part of routine care. It can prevent up to half of all deaths in infants weighing less than 2000 grams. KMC includes early and prolonged skin-to-skin contact with the mother (or a substitute caregiver) and exclusive and frequent breastfeeding. This natural form of human care stabilises body temperature, promotes breast feeding, and prevents infection and other morbidities. This also leads to early discharge, better neuro development and encourages bonding between mother and infant. Further, KMC Unit of 8-10 beds is recommended for every hospital with SNCU or should be located as close to SNCU as possible in the existing/new premises.

Audit observed that KMC facility was not available in three DHs at Fatehgarh Sahib, Hoshiarpur and Ludhiana. Further, following deficiencies were noticed in the remaining three DHs[46]:

(a) Against requirement of 8-10 beds in KMC, DH Moga had no bed. However, in DH Bathinda and DH Gurdaspur only two and five beds were available respectively.

(b) Storage facility for expressed breast milk was not available in DHs.

(c) Semi-reclining beds, easy chairs and storage space for locker for mother was not available in DHs, except two easy chairs in DH Bathinda.

On being pointed out, the Department stated (December 2022) that the State was in the process of procuring KMC chairs. The Department may also ensure adequate storage facility for expressed breast milk to avoid wastage.

### 3.5.4 Administration of birth doses

As per WHO, "A fully immunised infant is one who has received BCG, three doses of OPV, three doses of Hepatitis B and Measles before one year of age." The schedule of vaccination at birth of an infant is as follows:

Hepatitis B: At birth for delivery, preferably within 24 hours of delivery; OPV: At birth for deliveries within first 15 days; and as per Operational Guidelines-Injection Vitamin K Prophylaxis at Birth, Vitamin 'K': as a single dose soon after birth.

The details of achievement in vaccination of birth doses to new-borns in six test-checked districts are given in **Table 3.30**.

[45] Low birth weight (LBW) has been defined by the World Health Organisation (WHO) as weight at birth less than 2,500 grams.

[46] (i) Bathinda; (ii) Gurdaspur; and (iii) Moga.

**Table 3.30: Achievement of birth doses given to newborns during 2020-21**

| Name of District | Total live births | Achievement (*percentage*) | | |
|---|---|---|---|---|
| | | Vitamin 'K' | OPV | Hepatitis B |
| Bathinda | 17,456 | 55 | 79 | 72 |
| Fatehgarh Sahib | 4,850 | 39 | 104 | 75 |
| Gurdaspur | 19,931 | 57 | 81 | 63 |
| Hoshiarpur | 18,169 | 76 | 82 | 80 |
| Ludhiana | 48,028 | 46 | 86 | 54 |
| Moga | 11,783 | 57 | 82 | 80 |

*Source: Data from Health Management Information System*

***Colour code*: Green depicts 'good achievement', Yellow depicts 'satisfactory' and Red depicts 'poor achievement'**

It can be seen from above table that the administration of Vitamin K doses and Hepatitis B doses which were supposed to be given soon after birth and within 24 hours of delivery respectively was only 55 *per cent* and 72 *per cent* in Bathinda district, 39 *per cent* and 75 *per cent* in Fatehgarh Sahib district, 57 *per cent* and 63 *per cent* in Gurdaspur district, 76 *per cent* and 80 *per cent* in Hoshiarpur district, 46 *per cent* and 54 *per cent* in Ludhiana district, 57 *per cent* and 80 *per cent* in Moga district. However, administration of OPV doses in Fatehgarh Sahib was quite satisfactory whereas in the remaining five districts, it ranged between 79 *per cent* and 86 *per cent*. The administration of doses of BCG was quite satisfactory in four[47] districts whereas in Bathinda district, it was 86 *per cent* and in Gurdaspur district, it was 96 *per cent*.

Audit further observed that out-of-stock period of BCG vaccine ranged between 7 and 123 days in three[48] CHCs and PHC Nandpur Kalour; stock-out period of OPV vaccines ranged between 10 and 49 days in two[49] CHCs; Hepatitis-B vaccines ranged between 4 and 363 days in three[50] CHCs and three[51] PHCs; and in respect of Tetanus Toxoid (TT) vaccines it ranged between 7 and 32 days in two CHCs at Bassi Pathana and Amloh and PHC Nandpur Kalour during the period 2016-2021 **(*Appendix 3.3*)**.

It is evident from above that although the administration of birth doses to newborns was mandatory, the Department could not ensure the availability as well as administration of these doses without any break.

On being pointed out in audit, the Department stated (December 2022) that vaccines were administered in Bathinda, Fatehgarh Sahib and Ludhiana which showed that vaccines were not out of stock. The reply was not tenable as the

47 (i) Fatehgarh Sahib; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.
48 (i) Bassi Pathana; (ii) Amloh; and (iii) Sidhwan Bet.
49 (i) Bassi Pathana; and (ii) Sidhwan Bet.
50 (i) Bassi Pathana; (ii) Amloh; and (iii) Sidhwan Bet.
51 (i) Nandpur Kalour; (ii) Bhai Rupa; and (iii) Sanghol.

Senior Medical Officers of CHCs at Bassi Pathana, Amloh in District Fatehgarh Sahib and Sidhwan Bet in District Ludhiana; and Medical Officers of PHC Bhai Rupa in District Bathinda had confirmed non-availability of vaccines during audit.

### 3.5.5 Check outs within 48 hours of delivery in post-natal care

The 12th Five Year Plan aims to bring all women during pregnancy and childbirth into the institutional fold so that delivery care services of good quality can be provided to them at the time of delivery at zero expense as envisioned under the Janani Shishu Suraksha Karyakram (JSSK) programme. The programme entitles all pregnant women to absolutely free institutional delivery including C-Section with a provision for free drugs, diagnostics, diet, blood; and transport from home to facility and from facility to drop back home. Further, there should be adequate number of beds in post-natal care ward to ensure 48 hours of stay after delivery. Details related to women discharged within 48 hours from health facilities in the test-checked six districts are given in **Table 3.31**.

**Table 3.31: Number of women discharged within 48 hours after delivery during 2020-21**

| Name of District | Total number of institutional deliveries | Total number of women discharged within 48 hours of delivery | Percentage of women discharged within 48 hours of delivery |
|---|---|---|---|
| Bathinda | 17,702 | 4,561 | 26 |
| Fatehgarh Sahib | 4,876 | 317 | 7 |
| Gurdaspur | 20,066 | 6,365 | 32 |
| Hoshiarpur | 18,390 | 494 | 3 |
| Ludhiana | 48,595 | 8,254 | 17 |
| Moga | 11,871 | 6,846 | 58 |

*Source: Data from Health Management Information System*

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It was observed that maximum 58 *per cent* women were discharged within 48 hours after delivery in district Moga whereas only 3 *per cent* women were discharged within 48 hours after delivery in district Hoshiarpur. Similarly, the percentage of women who were discharged within 48 hours after delivery from the health institutions in the remaining districts of Bathinda, Fatehgarh Sahib, Gurdaspur and Ludhiana was 26 *per cent,* 7 *per cent,* 32 *per cent* and 17 *per cent* respectively due to repeated requests by the patients/attendants to discharge them from the hospital before 48 hours. Higher rate of women discharged within 48 hours in districts Bathinda, Gurdaspur, Ludhiana and Moga could be attributed to shortage of beds in respective DHs, as discussed in **Paragraph 5.3.2 (Table 5.5)**.

The reply of the State Government was awaited (February 2024).

### 3.5.6 Non-adherence to the National Guidelines for prevention of Parent-to-Child Transmission of HIV

National Guidelines for Prevention of Parent-to-Child Transmission of HIV (December 2013) provide that infants born to HIV-infected mothers should receive Nevirapine prophylaxis immediately after birth within an hour of delivery to further reduce prepartum and postpartum HIV transmission. An Integrated Counselling and Testing Centre (ICTC) is a place where a person is counselled and tested for HIV, of his own free will or as advised by a medical provider. An ICTC facility is essentially required in DH and CHC as per IPHS norms.

It was observed from the information obtained from the sampled DHs and CHCs that 310 HIV infected mothers delivered infants during 2016-2021 in five[52] DHs and three[53] CHCs. However, dose of Syrup Nevirapine was not given to 56 infants (18 *per cent*) to further reduce postpartum HIV transmission. Further, ICTCs were functional in all the six test-checked DHs and in case of CHCs, ICTCs were not functional in seven[54] out of 12 test-checked CHCs.

The Department stated (December 2022) that during 2017-18, there was a shortage of supply of Nevirapine Syrup from NACO and the supply had been purchased by Punjab State AIDS Control Society (PSACS), as a result of which Nevirapine Syrup was given late (within 42-60 days of birth). It was further stated that the record of 56 infants was with concerned ICTC and not in delivery rooms. It was added that as per PPTCT guidelines, ARV Prophylaxis (Nevripine/Ziduvidine) should be available in all the delivery rooms for emergency. The reply of the Department that the record of 56 infants was available with ICTC was not acceptable as the data regarding number of infants not provided with the syrup was supplied by the Department itself. Moreover, the Department had admitted that in 2017-18, the syrup was administered late by 42-60 days after the birth whereas it was to be provided within an hour of delivery as per the guidelines *ibid*.

### 3.5.7 Maternity care outcomes

With a view to gauge the quality of maternity care provided by the test-checked hospitals, Audit ascertained the outcomes in terms of still birth, referral, LAMA, absconding rate, and neonatal deaths pertaining to the years 2016-2022.

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[52] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Hoshiarpur; and (v) Ludhiana.

[53] (i) Fatehgarh Churian; (ii) Sudhar; and (iii) Sidhwan Bet.

[54] (i) Bhucho Mandi; (ii) Mehraj; (iii) Amloh; (iv) Bassi Pathana; (v) Naushera Majja Singh; (vi) Mahilpur; and (vii) Shamchaurasi.

### *3.5.7.1 Still births*

The stillbirth rate is a key indicator of quality of care during pregnancy and childbirth, which is defined by WHO as: 'the extent to which healthcare services provided to individuals and patients population improve desired health outcomes. In order to achieve this, healthcare needs to be safe, effective, timely, efficient, equitable, and people-centred'. Still birth and/or intrauterine fetal death is an unfavorable pregnancy outcome and is defined as complete expulsion or extraction of the baby from its mother with no signs of life. Details of rate of still birth/intrauterine death (IUD) in test-checked RH, Patiala and six DHs are given in **Table 3.32**.

**Table 3.32: Still birth rate in test-checked RH/DHs**

| Year | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|
| 2016-17 | 9.27 | 0.12 | 1.37 | 2.85 | 3.51 | 2.87 | 2.75 |
| 2017-18 | 8.67 | 0.06 | 1.14 | 1.48 | 2.66 | 1.54 | 2.45 |
| 2018-19 | 7.93 | 0.53 | 1.56 | 2.03 | 2.82 | 1.77 | 2.10 |
| 2019-20 | 6.60 | 0.52 | 1.54 | 1.79 | 2.64 | 1.59 | 1.89 |
| 2020-21 | 7.89 | 0.77 | 1.15 | 2.18 | 2.90 | 1.94 | 1.55 |

*Source: Information provided by test-checked RH Patiala/DHs*

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It was observed that:

(i) In RH Patiala, the still birth rate was very high and it ranged between 6.60 *per cent* and 9.27 *per cent*.

(ii) In six test-checked DHs, stillbirth rate was low in DH Bathinda ranging between 0.06 *per cent* and 0.77 *per cent* whereas in the remaining five DHs, it was ranging between 1.14 *per cent* and 3.51 *per cent.*

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that for reduction in still births, quality antenatal services, early identification of high-risk pregnancies and timely referral to higher facility were being focussed on.

### *3.5.7.2 Other indicators*

Performance of the test-checked DHs on certain outcome indicators such as average Referral Out Rate (ROR), average Leave Against Medical Advice (LAMA) and average Absconding Rate (AR) for the period 2016-17 to 2021-22 is given in **Table 3.33**.

**Table 3.33: Average ROR/LAMA/AR in test-checked DHs**

| Name of Hospital | Total IPD in Maternity | Average ROR | | Average LAMA | | Average Absconding | |
|---|---|---|---|---|---|---|---|
| | | Cases | Rate | Cases | Rate | Cases | Rate |
| Bathinda | Data not provided | | | | | | |
| Fatehgarh Sahib | 5,204 | 1,288 | 24.75 | 14 | 0.27 | 0 | 0.00 |
| Gurdaspur | 19,838 | 870 | 4.39 | 1,095 | 5.52 | 504 | 2.54 |
| Hoshiarpur | 19,539 | 1,037 | 5.31 | 2,588 | 13.25 | 232 | 1.19 |
| Ludhiana | 72,243 | 3,676 | 5.09 | 8,351 | 11.56 | 4,625 | 6.40 |
| Moga | 23,789 | 1,532 | 6.44 | 921 | 3.87 | 76 | 0.32 |

*Source: Information furnished by test-checked DHs*

**Colour code: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It is evident from the above table that average ROR was lowest (4.39 *per cent*) in DH Gurdaspur and highest (24.75 *per cent*) in DH Fatehgarh Sahib. Average LAMA was lowest (0.27 *per cent*) in DH Fatehgarh Sahib and highest (13.25 *per cent*) in DH Hoshiarpur. There was no absconding case in DH Fatehgarh Sahib but it was highest (6.40 *per cent*) in DH Ludhiana amongst six test-checked DHs.

The reply of the State Government was awaited (February 2024).

### *3.5.7.3 Death Review*

As per IPHS 2012 norms, all mortality cases that occur in the hospital shall be reviewed on a fortnightly basis. Further, as per Child Death Review Operational Guidelines (2014), detailed investigation should be conducted in all cases of child deaths taking place in a hospital. The Facility Based Neonatal and Post-Neonatal Death Review Forms (Forms 4a & 4b) should be filled for the child death (depending on the age category) by the Duty Medical Officer. The Treating Medical Officer (doctor under whose care the child was primarily admitted in the hospital) will assign the medical cause of death and add any other information that he/she has regarding the social factors and delays associated with the death.

Details of maternal and neonatal death reviews conducted in test-checked DHs during 2016-2022 are given in **Table 3.34.**

**Table 3.34: Maternal death review/neonatal death review conducted in test-checked DHs during 2016-2022**

| Name of Hospital | Maternal Death | | | Neonatal Death | | |
|---|---|---|---|---|---|---|
| | No. of maternal deaths | No. of maternal death reviews conducted | Shortfall (*percentage*) | No. of neonatal deaths | No. of neonatal death reviews conducted | Shortfall (*percentage*) |
| DH Bathinda | 28 | 28 | 0 | 56 | 21 | 62.50 |
| DH Fatehgarh Sahib | Nil | Nil | Nil | 3 | 0 | 100 |
| DH Gurdaspur | 8 | 0 | 100 | 35 | 0 | 100 |
| DH Hoshiarpur | 17 | 17 | 0 | 125 | 42 | 66.40 |
| DH Ludhiana | 23 | 0 | 100 | 294 | 0 | 100 |
| DH Moga | 10 | 0 | 100 | 97 | 0 | 100 |

*Source: Information provided by test-checked DHs*

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It is evident from the above table that:

- DH Bathinda and DH Hoshiarpur reviewed all maternal deaths whereas in DH Gurdaspur, DH Ludhiana and DH Moga, no maternal death review was conducted during 2016-17 to 2021-22.
- In DH Bathinda and DH Hoshiarpur, there was shortfall of 62.50 *per cent* and 66.40 *per cent* respectively in conducting review of neonatal deaths. Further, in DHs at Fatehgarh Sahib, Gurdaspur, Ludhiana and Moga, no neonatal death review was conducted during 2016-17 to 2021-22.

The Department should ensure the review of maternal and child deaths in all the health institutions and take corrective measures to overcome these causes as it could help in reducing overall Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) in the State.

The reply of the State Government was awaited (February 2024).

### *3.5.7.4 Monthly Satisfaction Survey and Form-III register in Maternity Wing*

As per NHM Assessor's Guidelines, the facility should establish a system for patient and employee satisfaction and the survey should be done on monthly basis.

As per Comprehensive Abortion Care (Training and Service Delivery Guidelines) 2018, it is mandatory to fill and record information for abortion cases, performed by any technique, in Form III – Admission Register for case records.

Out of the six test-checked DHs, four[55] DHs did not conduct the monthly satisfaction survey in maternity wing during the period 2016-17 to 2021-22.

[55] (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Hoshiarpur; and (iv) Moga.

Further, it was found that a register in 'Form III - Admission Register' for recording therein the details of admissions of women for the termination of their pregnancies was maintained in maternity wing in only three[56] DHs.

The reply of the State Government was awaited (February 2024).

## 3.6 Line and Support Services

Line and support services such as emergency services, imaging services, pathology services, ambulance services, blood bank, dietary services, laundry services, Bio-Medical Waste Management, ICU, oxygen service and mortuary service are important for effective functioning of hospitals.

Scrutiny of information/data collected from the Department revealed that all the above line and support services except one or two were found available in all DHs. The hospital-wise details of services is depicted in **Table 3.35**.

**Table 3.35: Details of line services (Line and Support) available in DHs**

| Name of the District Hospital | Emergency Services | Imaging Services | Pathology Services | Ambulance Services | Blood Bank | Dietary Services | Laundry Services | Bio-Medical Waste Management | ICU | Oxygen Service | Mortuary Service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amritsar | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Barnala | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Bathinda | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Faridkot | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y |
| Fazilka | Y | Y | Y | Y | Y | N | Y | Y | Y | Y | Y |
| Fatehgarh Sahib | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Ferozepur | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Gurdaspur | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Hoshiarpur | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Jalandhar | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Kapurthala | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Ludhiana | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Mansa | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Moga | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Malerkotla | Y | Y | Y | Y | Y | N | Y | Y | N | Y | Y |
| Pathankot | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Patiala | Y | Y | Y | Y | N | Y | Y | Y | N | Y | N |
| Rupnagar | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| Sangrur | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |
| SAS Nagar | Y | Y | Y | Y | Y | Y | Y | Y | Y | N | Y |

[56] (i) Bathinda; (ii) Ludhiana; and (iii) Fatehgarh Sahib.

| Name of the District Hospital | Emergency Services | Imaging Services | Pathology Services | Ambulance Services | Blood Bank | Dietary Services | Laundry Services | Bio-Medical Waste Management | ICU | Oxygen Service | Mortuary Service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SBS Nagar | Y | Y | Y | Y | N | Y | Y | Y | N | Y | Y |
| Sri Muktsar Sahib | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Tarn Taran | Y | Y | Y | Y | Y | Y | Y | Y | N | Y | Y |

*Source: Information provided by DHS*

*Note: Dietary services were available in selected DHs under JSSK Scheme only.*

***Colour code*:**

| Available | Not available |
|---|---|

It was evident from the above table that:

- Blood bank service was not available in DHs at Patiala and SBS Nagar;
- Dietary service was not available in three DHs (Faridkot, Fazilka and Malerkotla) for the indoor patients; and
- ICU service in DHs except for DHs at Fazilka, Gurdaspur, Jalandhar, Sri Muktsar Sahib and SAS Nagar was not available.

Significant audit findings in the test-checked health institutes are discussed in the succeeding paragraphs:

### 3.6.1 Diagnostic services

Efficient and effective diagnostic services, both radiological and pathological, are amongst the most essential healthcare facilities for delivering quality treatment to the public based on accurate diagnosis. Many of the significant radiology and pathology tests were not performed in the test-checked health institutions due to lack of required equipment and skilled manpower. Significant audit findings are discussed in the succeeding paragraphs.

#### *3.6.1.1 Availability of Diagnostic Imaging (Radiology) Services in test-checked DHs*

Radiology, also called diagnostic imaging, is a series of different tests that take pictures or images of various parts of the body. Radiology is essential to the diagnosis of many diseases. Adequate availability of functional radiology equipment, skilled human resources and consumables are the key requirements for the delivery of quality radiology services.

IPHS 2012 norms prescribe radiology services for the district hospitals (X-ray, Ultrasonography, CT scan, etc.) and X-ray (chest, skull, spine, abdomen, bones, dental, etc.). These also prescribe diagnostic services under Cardiology, ENT, Endoscopy, Respiratory and Ophthalmology in DHs. The availability of diagnostic services under various categories in the test-checked DHs is detailed in **Table 3.36.**

**Table 3.36: Availability of Diagnostic Imaging (Radiology) services in test-checked DHs**

| Name of Service | Name of test | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|
| Radiology | X-ray for chest, skull, spine, abdomen, bones | Yes | Yes | Yes | Yes | Yes | Yes |
| | Dental X-ray | Yes | No | No | Yes | Yes | Yes |
| | Ultrasonography | Yes | Yes | Yes | Yes | Yes | Yes |
| | CT scan | No | No | No | No | No | No |
| | Barium swallow, Barium meal, Barium enema, IVP | No | No | No | Yes | No | No |
| | MMR (Chest) | Yes | No | No | No | Yes | No |
| | HSG | No | No | No | No | No | No |
| Cardiology | ECG | Yes | Yes | Yes | Yes | Yes | Yes |
| | Stress tests | No | No | No | No | No | No |
| | ECHO | No | No | No | No | No | No |
| ENT | Audiometry | Yes | No | No | No | Yes | No |
| | Endoscopy for ENT | Yes | No | No | Yes | No | No |
| Ophthalmology | Refraction by using Snellen's chart | Yes | Yes | Yes | Yes | Yes | Yes |
| | Retinoscopy | Yes | Yes | Yes | Yes | Yes | Yes |
| | Ophthalmoscopy | Yes | Yes | Yes | Yes | Yes | Yes |
| Endoscopy | Laparoscopic (diagnostic) | Yes | Yes | No | No | No | Yes |
| | Oesophagus | No | No | No | No | No | No |
| | Stomach | No | No | No | No | No | No |
| | Colonoscopy | No | No | No | No | No | No |
| | Bronchoscopy | No | No | No | No | No | No |
| | Arthroscopy | No | No | No | No | No | No |
| | Hysteroscopy | No | No | No | No | No | No |
| Respiratory | Pulmonary function tests | No | No | No | No | No | No |

*Source: Data furnished by test-checked District Hospitals*

***Colour code*:**

| Available | Not available |
|---|---|

It was observed that:

- Facility of X-ray for chest, skull, spine, abdomen and bones was available in all test-checked DHs.
- Facility of Dental X-Ray was available in all test-checked DHs except DHs at Fatehgarh Sahib and Gurdaspur. Ultrasonography was available in all the test-checked district hospitals;
- CT Scan, ECHO, Stress test and HSG services were not available in any test-checked DHs. However, ECG service was available in all test-checked DHs;
- Facility for Barium Swallow, Barium meal, Barium enema, IVP was not available in any test-checked DHs except DH Hoshiarpur.

MMR (Chest) and Audiometry services were available in DH Bathinda and DH Ludhiana only; and

- Endoscopy and Respiratory services were not available in any test-checked DHs[57]. Ophthalmology services were available in all of the test-checked DHs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.1.2 Availability of Diagnostic Imaging (Radiology) services in RH Patiala*

GMCH followed the NMC norms but no norms for diagnostic (radiology) services are prescribed in NMC, therefore, availability of these services in RH Patiala have been compared with IPHS norms for 500 bedded district hospital. During the course of audit, details related to availability of diagnostic radiology services in RH Patiala were obtained and shown in **Table 3.37**.

**Table 3.37: Availability of Diagnostic Imaging (Radiology) services in RH Patiala**

| Sr. No. | Type of Radiology Services | Availability |
|---|---|---|
| 1. | Cardiology[58](3) | 3 |
| 2 | Ophthalmology[59](3) | 3 |
| 3. | ENT[60](2) | 2 |
| 4. | Radiology[61](7) | 6 |
| 5. | Endoscopy[62](7) | 7 |
| 6. | Respiratory[63](1) | 1 |

*Source: Information furnished by RH Patiala*
***Colour code*: Green depicts 'availability' and Yellow depicts 'partial availability'**

It was observed that under radiology category, all radiology services were available except MMR (Chest) in RH Patiala.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

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57 Except for Laparoscopic (diagnostic) test under Endoscopy service at DHs Bathinda, Fatehgarh Sahib and Moga. In other three test-checked DHs viz. Gurdaspur, Hoshiarpur and Ludhiana, endoscopy equipment was not available.

58 (i) ECG; (ii) Stress Test; and (iii) ECHO.

59 (i) Refraction by using Snellen's chart; (ii) Retinoscopy; and (iii) Ophthalmoscopy.

60 (i) Audiometry; and (ii) Endoscopy for ENT.

61 (i) X-ray for chest, skull, spine, abdomen, bones; (ii) Barium swallow, Barium meal, Barium enema, IVP; (iii) MMR (Chest); (iv) HSG; (v) Dental X-ray; (vi) Ultrasonography; and (vii) CT scan.

62 (i) Oesophagus; (ii) Stomach; (iii) Colonoscopy; (iv) Bronchoscopy; (v) Arthroscopy; (vi) Laparoscopy (Diagnostic); and (vii) Hysteroscopy.

63 Pulmonary function test.

### *3.6.1.3 Availability of Diagnostic Imaging (Radiology) services in test-checked CHCs*

IPHS 2012 norms provide that X-ray for chest, skull, spine, abdomen, bones and Dental X-ray facilities should be available in a CHC under imaging services. Further, ECG which is a cardiac investigation service should be provided in a CHC. Availability of these services in the test-checked CHCs is given in **Table 3.38**.

**Table 3.38: Availability of services related to Radiology and Cardiac investigation in test-checked CHCs**

| Name of district | Name of CHC | Radiology Services | | Cardiac Investigation |
|---|---|---|---|---|
| | | X-ray | Dental X-ray | ECG |
| Bathinda | CHC Bhucho Mandi | Yes | No | Yes |
| | CHC Mehraj | Yes | No | No |
| Fatehgarh Sahib | CHC Amloh | Yes | Yes | Yes |
| | CHC Bassi Pathana | Yes | Yes | No |
| Gurdaspur | CHC Fatehgarh Churian | Yes | Yes | Yes |
| | CHC N M Singh | Yes | No | Yes |
| Hoshiarpur | CHC Mahilpur | Yes | Yes | No |
| | CHC Shamchaurasi | Yes | Yes | No |
| Ludhiana | CHC Sidhwan Bet | Yes | Yes | Yes |
| | CHC Sudhar | Yes | Yes | No |
| Moga | CHC Bagha Purana | Yes | Yes | Yes |
| | CHC Nihal Singh Wala | Yes | No | No |

*Source: Information furnished by test-checked CHCs*

***Colour code:***

| Available | Not available |
|---|---|

It is evident from above that Dental X-ray service was not available in CHCs Bhucho Mandi, Mehraj, Naushera Majja (NM) Singh and Nihal Singh Wala. The facility of cardiac investigation (ECG) was also not available in six CHCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.1.4 Non-registration of imaging equipment from authorities*

As per Section 3 of Atomic Energy (Radiation and Protection) Rules, 2004, no person shall, without a license - (a) establish a radiation installation for sitting, design, construction, commissioning, operation; and (b) decommission a radiation installation. No person shall handle any radioactive material or operate any radiation generating equipment except in accordance with the terms and conditions of a license.

Audit noticed that requisite license from AERB was obtained by all the test-checked health institutions except CHC Mehraj for providing the X-ray services.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.1.5 Thermoluminescent Dosimeters (TLD) for radiation protection*

Staff working in the X-ray room have to wear monitoring equipment such as TLD badges[64] and pocket dosimeters[65]. As per Atomic Energy (Radiation Protection) Rules, 2004, monitoring equipment shall be provided to radiation workers and dose records shall be maintained. In case of any institution violating the prescribed regulatory requirements, AERB is empowered to suspend/modify/withdraw the license/registration issued to the X-ray installation or seal the X-ray installation(s) in accordance with Rules 10 and 31 of the Atomic Energy (Radiation Protection) Rules, 2004 respectively.

Availability of TLD badges and pocket dosimeters in the test-checked DHs during 2016-2022 is detailed in **Table 3.39**.

**Table 3.39: Availability of TLD badges and pocket dosimeters in test-checked DHs**

| Name of Health Institution | | TLD badges | Pocket dosimeters |
|---|---|---|---|
| DH Bathinda | | Yes | No |
| DH Fatehgarh Sahib | | Yes | Yes |
| DH Gurdaspur | | Yes | No |
| DH Hoshiarpur | | No | No |
| DH Ludhiana | | Yes | No |
| DH Moga | | Yes | Yes |
| RH Patiala | Radiodiagnosis | Yes[66] | Not used |
| | Radiation Oncology | Yes | Yes |

*Source: Information furnished by test-checked hospitals*

***Colour code:***

| Available | Not available |
|---|---|

It is evident from the above table that Thermoluminescent Dosimeters (TLD) badges were available in all test-checked DHs except DH Hoshiarpur but pocket dosimeters were not available in any DHs except DH Fatehgarh Sahib, DH Moga and RH Patiala for Radiation Oncology department. Due to non-availability of these safety equipment, safety of technicians was, therefore, compromised.

The reply of the State Government was awaited (February 2024).

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64 TLD badges are used to detect radiation at levels that can be harmful to humans.

65 Pocket Dosimeters are used to provide the wearer with an immediate reading of his or her exposure to X-rays and gamma rays.

66 Except October-December 2018, January-March 2019, October-December 2020, 2021 and January-March 2022.

### 3.6.2 Pathology services

Pathology services are the backbone of any hospital for extending evidence-based healthcare to the public. As in the case of radiology services, availability of essential equipment, reagents and human resources are the main drivers for the delivery of quality pathology services through in-house laboratories. The audit observations related to these services have been discussed in the succeeding paragraphs.

#### *3.6.2.1 Availability of pathology services in test-checked Hospitals*

IPHS 2012 norms prescribe 72 types of pathological investigations in the categories of clinical, microbiology, serology and biochemistry to be carried out in DHs. Audit observed that the pathology services in the test-checked hospitals were provided through in-house laboratories. Availability of pathology services offered by the test-checked DHs is detailed in **Table 3.40**.

**Table 3.40: Availability of pathology services in test-checked DHs**

| Name of Health Institution | Clinical pathology[67] (29) | Pathology[68] (8) | Microbiology (7) with Serology (7) | Biochemistry (21) |
|---|---|---|---|---|
| DH Bathinda | 22 | 2 | 7 | 11 |
| DH Fatehgarh Sahib | 19 | 3 | 8 | 9 |
| DH Gurdaspur | 26 | 4 | 13 | 12 |
| DH Hoshiarpur | 21 | 3 | 7 | 11 |
| DH Ludhiana | 26 | 4 | 12 | 14 |
| DH Moga | 21 | 2 | 10 | 10 |

*Source: Information furnished by test-checked hospitals*
*Figure in parenthesis shows number of tests required.*
***Colour code*: Green depicts 'adequate availability', Yellow depicts 'partial availability' and Red depicts 'least availability'**

It is observed from above table that complete range of tests under pathology services was not available at any test-checked DHs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

#### *3.6.2.2 Availability of pathology services in test-checked CHCs*

IPHS 2012 norms prescribe 29 types of pathological investigations in the categories of clinical (18) [69], pathology (sputum), microbiology (2) [70], serology (3)[71] and biochemistry (5)[72] to be carried out in CHCs. Availability

[67] Clinical Pathology (29): Haematology (7), Immunoglobin profile (IGM, IGG, IGE, IGA), Fibrinogen Degradation product (13), Urine Analysis (2), Stool Analysis (4), Semen Analysis, CSF Analysis and Aspirated fluids (3).

[68] Pathology (8): PAP smear (1), Sputum (1), Haematology (5) and Histopathology (1).

[69] Clinical pathology: Haematology, Urine Analysis, Stool Analysis, etc.

[70] Microbiology: Smear for AFB & KLB; Grams stain for throat swab, sputum, etc.

[71] Serology: VDRL, Pregnancy test, WIDAL test, etc.

[72] Biochemistry: Blood Sugar, Blood Urea, Liver Function Test, Kidney Function Test, Blood Lipid Profile.

of pathology services offered by the test-checked CHCs is detailed in **Table 3.41**.

**Table 3.41: Availability of pathology services in test-checked CHCs**

| Name of District | Name of CHC | Clinical Pathology (18) | Pathology (1) | Microbiology with Serology (5) | Biochemistry (5) |
|---|---|---|---|---|---|
| Bathinda | Mehraj | 7 | 0 | 3 | 1 |
| | Bhucho Mandi | 12 | 0 | 3 | 4 |
| Fatehgarh Sahib | Amloh | 8 | 0 | 4 | 5 |
| | Bassi Pathana | 11 | 0 | 3 | 3 |
| Gurdaspur | Fatehgarh Churian | 12 | 0 | 4 | 4 |
| | N M Singh | 9 | 0 | 4 | 5 |
| Hoshiarpur | Mahilpur | 13 | 0 | 3 | 5 |
| | Shamchaurasi | 9 | 0 | 4 | 5 |
| Ludhiana | Sudhar | 15 | 1 | 4 | 5 |
| | Sidhwan Bet | 10 | 0 | 4 | 5 |
| Moga | Bagha Purana | 12 | 0 | 5 | 2 |
| | Nihal Singh Wala | 15 | 0 | 4 | 5 |

*Source: Information furnished by test-checked CHCs*

***Colour code*: Green depicts 'adequate availability', Yellow depicts 'partial availability' and red depicts 'least/non-availability'**

In the test-checked CHCs, it was observed that:

i. There was shortfall in availability of clinical pathology diagnostic services ranging from 17 *per cent* to 61 *per cent* at test-checked CHCs;

ii. Pathology (sputum diagnostic) service was available only in CHC Sudhar;

iii. There was shortfall in availability of Microbiology with Serology pathological tests ranging up to 40 *per cent*; and

iv. All Biochemistry tests facility was available at seven CHCs only and in other five CHCs, there was shortfall in Biochemistry tests ranging between 20 *per cent* and 80 *per cent*.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.2.3 Waiting time and Turn-around time*

Time taken in receiving samples from the patients for investigations i.e. Waiting time (WT) and time taken in getting the investigations done and reporting the results to the patients i.e. Turn-around time (TAT) reflects the overall efficiency of the diagnostic services, in terms of patient satisfaction.

Audit observed that the doctors prescribed the tests/investigations on the patients' prescription slips. The patients were registered in the pathology/ radiology departments for the procedures based on the recommendations given by the doctors. Further, it was found that none of the test-checked hospitals

maintained the records pertaining to TAT and WT. So, in the absence of the requisite records, TAT and WT could not be ascertained.

The reply of the State Government was awaited (February 2024).

### *3.6.2.4 Quality assurance of pathology services*

IPHS 2012 norms provide that external validation of lab reports shall be done on a regular basis. Further, Paragraph 3.1.14 of NHM Guidelines also provides that under free diagnostic services initiative, system for regular cross checking of sample diagnostic results with identified reference laboratory should be established.

Accordingly, PHSC issued every year a list of health institutions to get External Quality Assurance (EQA) every month from the nominated laboratory (Christian Medical College, Vellore, Tamil Nadu).

Out of 43 test-checked health institutions, only 12 health institutions (six DHs and six CHCs) were falling in the list prescribed by PHSC for EQA test. Against the requirement of 600 test reports[73] in ten[74] health institutions for 60 months, 381[75] test reports were made available to Audit. Of these, performance of test reports for only 124[76] test reports were found up to the mark and in the remaining 257 test reports (67.5 *per cent*), the performance was found poor/unacceptable.

Out of 381 test reports, audit scrutinised 32 test reports of selected months[77]. The details of number of tests (one report contains various tests) conducted and tests found poor or unacceptable are detailed in **Table 3.42.**

**Table 3.42: Status of poor/unacceptable tests**

| District Hospital | Tests conducted | Number of test reports (selected months) | Tests found poor/ unacceptable | Percentage of poor/ unacceptable tests | Test reports were available in selected months except following |
|---|---|---|---|---|---|
| Bathinda | 97,726 | 4 | 20,645 | 21 | November 2016 |
| Fatehgarh Sahib | 27,592 | 2 | 2,313 | 8 | November 2016, May 2018 and August 2019 |
| Gurdaspur | 37,073 | 4 | 6,779 | 18 | November 2016 |
| Ludhiana | 85,833 | 4 | 8,245 | 10 | November 2016 |
| Moga | 52,253 | 4 | 18,269 | 35 | May 2018 |
| **Total** | **3,00,477** | **18** | **56,251** | **19** | |

[73] One test report for every month for five years (2016-2021), works out to 60 reports for each health institute.

[74] Two health institutions *viz.* DH Hoshiarpur and CHC Nihal Singh Wala did not provide records/information of EQA (monthly reports).

[75] DHs: Bathinda (46); Fatehgarh Sahib (51); Moga (50); Ludhiana (51); and Gurdaspur (47).
CHCs: Amloh (26); Bassi Pathana (30); Fatehgarh Churian (51); Sudhar (26); and Bagha Purana (03)

[76] DHs: Bathinda (4); Fatehgarh Sahib (37); Ludhiana (18); Gurdaspur (22); and Moga (5). CHCs: Amloh (2); Bassi Pathana (21); and Fatehgarh Churian (15).

[77] November 2016; February and May 2018; August 2019; and November 2020.

| District Hospital | Tests conducted | Number of test reports (selected months) | Tests found poor/ unacceptable | Percentage of poor/ unacceptable tests | Test reports were available in selected months except following |
|---|---|---|---|---|---|
| **CHCs** | | | | | |
| Amloh | 26,254 | 3 | 16,011 | 61 | November 2016 and November 2020 |
| Bagha Purana | 29,881 | 3 | 4,844 | 16 | November 2016 and November 2020 |
| Bassi Pathana | 809 | 1 | 0 | 0 | November 2016, February 2018, May 2018 and August 2019 |
| Fatehgarh Churian | 29,802 | 4 | 12,920 | 43 | November 2016 |
| Sudhar | 28,317 | 3 | 20,733 | 73 | November 2016 and February 2018 |
| **Total** | **1,15,063** | **14** | **54,508** | **47** | |

*Source: Information furnished by test-checked DHs/CHCs*

***Colour code*: Green depicts 'satisfactory quality', Yellow depicts 'moderate quality' and Red depicts 'poor quality' of tests**

**Table 3.42** shows that –

- In DHs, overall 19 *per cent* of tests conducted were found poor/unacceptable as per EQA report with highest 35 *per cent* in DH Moga.
- In CHCs, overall 47 *per cent* of tests conducted were found poor/unacceptable as per EQA report with highest 73 *per cent* in CHC Sudhar.

Poor and unacceptable results could result in giving misleading information to the patients resulting in erroneous information to the doctors while treating the patients.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.6.3 Ambulance services

As per IPHS 2012 norms, DHs are required to have three running ambulances with well-equipped Basic Life Support (BLS). It should be desirable to have one Advanced Life Support (ALS) ambulance. CHCs are also required to have ambulance round the clock with basic life support. It is desirable that PHC has ambulance facilities for transport of patients for timely and assured referral to functional FRUs in case of complications during pregnancy and child birth. There shall be a dedicated parking space separately for ambulances near emergency. Availability of ambulance services in test-checked DHs/CHCs is detailed in **Table 3.43.**

**Table 3.43: Availability of ambulance services in RH/DHs/CHCs/PHCs**

| Health Institution | No. of ambulances required as per norms | Availability of ambulance services 24X7 | Availability of parking space |
|---|---|---|---|
| DH Bathinda | 3 | 4 | Yes |
| DH Fatehgarh Sahib | 3 | 2 | Yes |
| DH Gurdaspur | 3 | 3 | Yes |
| DH Hoshiarpur | 3 | 4 | Yes |
| DH Ludhiana | 3 | 5 | Yes |
| DH Moga | 3 | 4 | Yes |
| RH Patiala | NA | 0 | NA |
| CHCs (12) | 12 | 3 | Yes |
| PHCs (24) | 24 | 2 | Yes |

*Source: Information provided by DHs/CHCs/PHCs* *NA= Not available*

***Colour code***

**Represents 'availability'**
**Represents 'short availability'**
**Represents 'non-availability' and 'acute shortage'**

Audit noticed the following:

- Adequate number of ambulances were available in all the test-checked DHs except DH Fatehgarh Sahib wherein two ambulances were available against the norms of three.
- In RH Patiala, no ambulance was available during 2016-2021.
- Out of 12 CHCs and 24 PHCs, ambulance service/transport facilities were available only in three[78] CHCs and two[79] PHCs.
- It was also noticed that ambulances at CHC Naushera Majja Singh and PHCs Ranjit Bagh and Behrampur had no valid registration certificate.

### *3.6.3.1 Issues in operation and monitoring of Emergency Medical Ambulance Services (ERS-108)*

With an aim to provide comprehensive emergency response services (medical, police, fire, etc.) to the people on a sustainable basis and round the clock safety to citizens in a timely and effective manner, Punjab Health Systems Corporation (PHSC) proposed in 2015 to outsource operation and management of Emergency Response Services (ERS) and an agreement was signed (May 2016) between PHSC and ambulance service provider for a period of five years with operational cost of ₹ 1.21 lakh per ambulance per month with five *per cent* annual increase of the quoted rate. Further, after expiry of the agreement, PHSC again entered (March 2021) into a new agreement with the service provider for the next five years with operational cost of ₹ 1.35 lakh per ambulance per month.

[78] (i) Amloh; (ii) Naushera Majja Singh; and (iii) Nihal Singh Wala.
[79] (i) Ranjit Bagh; and (ii) Behrampur.

The Standard Operating Procedure (SOP) was prepared in May 2016 (for the first tenure of agreement) to facilitate smooth implementation, operation and monitoring of Emergency Medical Ambulance Services (ERS-108) which was also revised in March 2021 (for second tenure of agreement).

Initially, the service provider started ERS with 240 basic life support ambulances provided by PHSC and as of March 2022, 325 ambulances were available in the fleet.

Analysis of dump data of ERS-108 provided by PHSC revealed the following:

**(i)** As per SOP, the Emergency Response Centre (created by the agency) informs the ambulance in respective locations to attend to the emergency victim. The response time as specified in the request for proposal (RFP) was an average of 30 minutes in rural areas and 20 minutes in urban areas for the first tenure of agreement and for the second tenure of agreement, it was 15 minutes for urban areas and 20 minutes for rural areas for all those calls where the distance from the base location/current location to the pick-up location is not more than 10 km. However, in the following 8,176 instances (during July 2021 to December 2022), the response time was more than the prescribed time, as detailed in **Table 3.44.**

**Table 3.44: Response time of ambulance more than prescribed time**

| Period | Total number of trips | Rural (Number of instances) | Urban (Number of instances) |
|---|---|---|---|
| | | Where distance is less than 10 km and response time is more than 20 minutes | Where distance is less than 10 km and response time is more than 15 minutes |
| 2016 to June 2021 | | Relevant fields were not captured in data i.e. reaching time on scene, reaching time to health facility, etc. | |
| 2021 (July to December) | 96,270 | 1,701 | 1,077 |
| 2022 | 1,91,993 | 3,833 | 1,565 |

*Source: Analysis of dump data of ERS provided by PHSC*

Adherence to response time was important to provide medical assistance to the patient in time. Not capturing the time of arrival of the ambulance at the location of the patient in the database for the period from 2016 to June 2021 defeated the very purpose of having a clause regarding response time incorporated in SOP.

Thus, monitoring would be hampered as necessary data was not captured.

### (ii) Non-disposal of condemned ambulances

PHSC instructed (August 2014) all Civil Surgeons/DMCs and Medical Superintendents in the State of Punjab for reorganisation of the committee along with financial powers to condemn unserviceable articles of stores/stock.

Audit observed that ERS-108 service was operationalised with 240 BLS ambulances in 2015 and up to December 2022, 270 more ambulances were added in the fleet. Out of these, 185 ambulances with book value of ₹ 23.03 crore were condemned during 2016-17 to 2022-23 (December 2022) but these vehicles were not disposed of (March 2023) as required under instructions *ibid.* With the passage of time, the condition of these vehicles would deteriorate and would fetch lesser value.

The reply of the State Government was awaited (February 2024).

### 3.6.4 Oxygen services

As per IPHS 2012 norms, Double Outlet Oxygen Concentrator, one each for the labour room and OT should be available in a DH. Among the equipment for Eclampsia Room, oxygen supply (central) should be available. The Special Newborn Care Unit (SNCU) should have oxygen reservoir and silicone round cushion masks – sizes 0 & 00 (1 set for each bed (essential) + 2). Further, Double Outlet Oxygen Concentrator 1 for every 3 beds (essential) should be available in SNCU and oxygen cylinder with trolley and gas with one bed should be available in the recovery room. The hospital should ensure the availability of anaesthesia equipment such as $O_2$ cylinder for Boyles Apparatus, pipe line supply of oxygen, nitrous oxide, compressed air and suction (desirable).

Further, NHM Assessor's guidelines provide that the healthcare facility should ensure the availability of centralised/local piped oxygen and vacuum supply (Standard D5), ambulance/transport vehicle having adequate arrangement for oxygen (Standard E11.4). As per Standard C5.1, the facility should ensure the availability of medical gases such as availability of oxygen cylinders. Standard D5.3 provides that there should be a procedure for prompt replacement of empty cylinders with filled cylinders and for periodic checking of all terminal units for malfunctioning. Instructions for operating different equipment should be clearly displayed. Availability of oxygen services in the test-checked health institutions is detailed in **Table 3.45.**

**Table 3.45: Oxygen services in test-checked GMCH/DHs**

| Name of service | GMCH | District Hospitals at | | | | | |
|---|---|---|---|---|---|---|---|
| | RH Patiala | Bathinda | Fatehgarh Sahib | Gurdaspur | Hoshiarpur | Ludhiana | Moga |
| Whether the requirement of oxygen in the hospital was assessed and infrastructure created accordingly? | Yes | Yes | Yes | No | No | Yes | Yes |
| Whether the standard operating procedure for oxygen was available and was being followed? | Yes | Yes | Yes | No | No | Yes | Yes |

| Name of service | GMCH | District Hospitals at | | | | | |
|---|---|---|---|---|---|---|---|
| | RH Patiala | Bathinda | Fatehgarh Sahib | Gurdaspur | Hoshiarpur | Ludhiana | Moga |
| Whether agreements were executed for the supply of uninterrupted oxygen? | Yes | Yes | Yes | No | No | Yes | Yes |
| Whether centralised oxygen supply system was installed in the hospital? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| In all such cases, whether required buffer stock was assessed and maintained all the time? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether records of serviceability and availability of oxygen cylinders were maintained as per guidelines? | Yes | Yes | Yes | No | No | Yes | Yes |
| Whether required oxygen supply (central) was available in Eclampsia Room? | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Whether oxygen reservoir is available for each bed at Special New-born Care Unit? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether the health institutions have Double Outlet Oxygen Concentrator at Special New-born Care Unit? | Yes | Yes | Yes | No | No | Yes | Yes |

*Source: Information provided by RH/DHs*

***Colour code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

i. Requirement of oxygen was assessed and infrastructure was created accordingly and the standard operating procedure for oxygen was available and followed in all the test-checked hospitals except DH Gurdaspur and DH Hoshiarpur.

ii. Agreements were executed for the supply of uninterrupted oxygen in all test-checked DHs except DH Gurdaspur and DH Hoshiarpur.

iii. Centralised oxygen supply system was installed and where centralised oxygen supply system was not available in the hospital, required buffer stock of oxygen cylinders was also assessed and maintained all the time in all DHs.

iv. Records of serviceability and availability of oxygen cylinders were not being maintained by DH Gurdaspur and DH Hoshiarpur, as adequacy of required oxygen cylinders was not assessed by these hospitals due to availability of centralised supply system there.

v. Required oxygen supply (central) in Eclampsia Room was not available at DH Gurdaspur.

vi. Though oxygen reservoirs for each bed at Special New-born Care Unit were available at all DHs but Double Outlet Oxygen Concentrator at Special New-born Care Unit was not available at DHs Gurdaspur and Hoshiarpur.

The reply of the State Government was awaited (February 2024).

### 3.6.5 Dietary services

As per IPHS 2012 norms for district and sub district hospitals, the dietary service of a hospital is an important therapeutic tool. It should be easily accessible from outside along with vehicular accessibility and separate room for dietician and special diet. The location should be such that the noise and cooking odour emanating from the department do not cause any inconvenience to the other departments. At the same time, location should involve the shortest possible time in delivering food to the wards. Apart from normal diet, diabetic, semi-solid and liquid diets shall be available, and the food shall be distributed in a covered container. Quality and quantity of diet shall be checked by competent person on regular basis.

As per NHM Assessor's guidelines (Standard D6) provides that "Dietary services are to be available as per service provision and nutritional requirement of the patients".

Audit noticed that no dietary service for IPD patients (except under the scheme JSSK) was available (neither in-house nor outsourced) in the test-checked DHs/CHCs/PHCs and RH Patiala.

However, availability/non-availability of dietary services under JSSK in the test-checked DHs/RH is detailed in **Table 3.46**.

**Table 3.46: Dietary services under JSSK in test-checked RH/DHs**

| Particulars | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga | RH Patiala |
|---|---|---|---|---|---|---|---|
| Availability of dietary service | A | A | A | A | A | A | A |
| If available, in-house/ outsourced (OS) | OS | OS | OS | OS | OS | OS | In house |
| Availability of kitchen | A | NA | A | NA | A | NA | A |
| Availability of standard procedures for preparation, handling, storage and distribution of clean, hygienic and nutritious diet to the indoor patients as per their caloric requirement | A | NA | A | NA | A | A | A |
| Availability of policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food, etc. | A | NA | A | NA | A | A | A |
| Availability of quality testing of diet supplied in health facilities | A | NA | A | NA | A | A | A |
| Evaluation of dietary services in health facilities | NA | NA | A | NA | A | A | A |
| Conduct of dietetic research on menu planning, preserving nutritional values, storage of food items, modern methods of cooking, etc. | A | NA | A | NA | A | A | A |

*Source: Information furnished by test-checked RH/DHs*

***Colour code*: Green depicts 'availability', Yellow depicts 'outsourced' and Red depicts 'non-availability'**

It is evident from the above table that:

i. Dietary services under JSSK were available in all test-checked health institutions and were provided through outsourced agencies except RH, Patiala wherein it was provided through inhouse service.

ii. Kitchen for dietary services was available in all test-checked hospitals except DHs at Fatehgarh Sahib, Hoshiarpur and Moga.

iii. Policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food, etc. was not available in DHs Fatehgarh Sahib and Hoshiarpur.

### 3.6.6 Blood Centre

As per IPHS 2012 norms, Blood Centre [80] shall be in close proximity to pathology department and at an accessible distance to operation theatre department, intensive care units and emergency and accident department. Blood Centre should follow all existing guidelines and fulfil all requirements as per the various Acts pertaining to setting up of the Blood Centre. Separate reporting room for doctors should be there. IPHS also provide that CHC shall have well-lit, clean and preferably air-conditioned Blood Storage Unit. Availability of blood centres in the test-checked health institutions is detailed in **Table 3.47.**

**Table 3.47: Availability of blood centres in test-checked RH Patiala/DHs**

| Particulars | GMCH | District Hospitals at | | | | | |
|---|---|---|---|---|---|---|---|
| | RH Patiala | Bathinda | Fatehgarh Sahib | Gurdaspur | Hoshiarpur | Ludhiana | Moga |
| Whether blood centre was available? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| If yes, whether valid license was available to run the blood centre? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether blood centre was available in close proximity to pathology department? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether blood centre was at an accessible distance to operation theatre department, intensive care units and emergency and accident department? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether separate reporting room for doctors was available? | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

*Source: Information furnished by test-checked RH/DHs*

It was further noticed that blood storage facility was not available at any of the test-checked CHCs except CHC Sudhar.

The reply of the State Government was awaited (February 2024).

[80] The words "Blood Banks" have been substituted (March 2020) as "Blood Centres" in the Drug and Cosmetics Rules, 1945.

### 3.6.7 Laundry services

IPHS 2012 norms provide that hospital laundry should be provided with necessary facilities for segregated collection, drying, pressing and storage of soiled and cleaned linens. It may be outsourced.

As per Kayakalp Guidelines, the provision of clean linen is a fundamental requirement for patient care. Incorrect procedures for handling or processing of linen can present an infection risk both to staff and patients who subsequently use it. Hence, correct linen management is important to prevent Hospital Acquired Infection (HAI) and ensure a better hygienic hospital environment. The term 'hospital linen' includes all textiles used in the hospital including mattresses, pillow covers, blankets, bed sheets, towels, screens, curtains, doctors' coats, theatre clothes and table clothes. The hospital receives all these materials from different areas like OT, wards, outpatient departments and office areas. All the linen of critical areas like OT and ICU etc. need to be changed daily. Kayakalp Guidelines also provides that hospitals need to ensure that they have at least four sets of linen per day, even though six sets are preferable. Classification of six sets of linen needed in hospitals are: (i) One already in use (on bed); (ii) One ready to use (in sub store); (iii) One in transit-route to laundry or to the ward; (iv) One in washing cycle in laundry; and (v) Two in stock (in central store). Further, there should be a system to check the cleanliness and quantity of the linen received from laundry.

Further, NHM Assessor's guidelines (Standard D7) include availability of adequate quantity of clean and usable linen, process of providing and changing bed sheets in-patient care area and process of collection, washing and distributing the linen. Besides direct observation, staff interaction may help in knowing availability of adequate sets of linen and work practices. An assessment of segregation and disinfection of soiled laundry should be undertaken. Further, the facility should have standard procedures for handling, collection, transportation and washing of linen.

In six DHs, washing of linen was being managed in-house by deploying one to two persons on District Collector (DC) rates or through contractual workers. However, in all CHCs, the washing of linen was being managed through local arrangement on need basis. Availability of Laundry service in the test-checked health institutions is detailed in **Table 3.48(a)**.

**Table 3.48(a): Laundry services in test-checked DHs/CHCs**

| Particulars | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga | Bathinda CHCs (2) | Fatehgarh Sahib CHCs (2) | Gurdaspur CHCs (2) | Hoshiarpur CHCs (2) | Ludhiana CHCs (2) | Moga CHCs (2) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Availability of required linen sets | A | A | A | A | A | A | 2 | 1 | 2 | 2 | 2 | 2 |
| Availability of system of changing the patient/OT linen at the prescribed intervals to maintain hygiene | A | A | A | A | A | A | 1 | 2 | 2 | 2 | 2 | 2 |
| Availability of system to check the quality of cleanliness of the linen received from laundry | NA | A | A | NA | A | A | 1 | 2 | 2 | 2 | 2 | 2 |
| Availability of date-wise and patient-wise records against each entry of linen issued from linen stock | NA | A | A | NA | A | A | 1 | 2 | 1 | 0 | 2 | 2 |
| Availability of system for periodic physical verification of linen inventory | NA | A | A | A | A | A | 1 | 2 | 2 | 2 | 2 | 2 |
| Follow-up of procedure for sluicing of soiled and infected linen | NA | A | A | NA | A | A | 1 | 2 | 2 | 2 | 0 | 2 |
| Maintenance of norms for washing and drying of linens | NA | A | A | A | A | A | 1 | 2 (out sourced in Bassi Pathana) | 2 | 2 | 2 | 2 |

*Source: Information furnished by test-checked DHs/CHCs*
*Note: Numbers (0,1,2) represent the number of CHCs wherein the particular service is available.*
***Colour code*: Green depicts 'availability', Yellow depicts 'partial availability' and 'Red depicts non-availability'**

It was observed that:

- Required linen sets were not available in CHC Bassi Pathana.
- System of changing the patient/OT linen at the prescribed intervals to maintain hygiene was not maintained by CHC Mehraj.
- System to check the quality of cleanliness of the linen received from laundry was not available in two DHs[81] and CHC Mehraj.
- Date-wise and patient-wise records against each entry of linen issued from linen stock was not maintained in two DHs at Bathinda and Hoshiarpur and four CHCs at Mehraj, Fatehgarh Churian, Mahilpur and Shamchaurasi.
- System for periodic physical verification of linen inventory was not maintained in DH Bathinda and CHC Mehraj.

[81] (i) DH Bathinda (Average BOR: 127); and (ii) DH Hoshiarpur (Average BOR: 76).

- Follow-up of procedure for sluicing[82] of soiled and infected linen was not done in two DHs at Bathinda and Hoshiarpur and in three CHCs at Mehraj, Sudhar and Sidhwan Bet.
- Norms for washing and drying of the linens was not followed in DH Bathinda and CHC Mehraj.

The position of laundry services *vis-à-vis* number of beds/BOR is depicted in **Table 3.48(b).**

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.7.1 Availability of linen in DHs*

IPHS 2012 norms prescribe 21 different types of linen such as bedsheets, blankets, pillows, pillow covers, etc. which are required for patient care services in the hospitals having 101-500 beds.

The position of unavailability/shortage of different types of linen in six test-checked DHs, is given in **Table 3.48(b).**

**Table 3.48(b): Availability of linen *vis-a-vis* number of beds/BOR in test-checked DHs**

| Sr. No. | Name of linen article | Bathinda (200 beds Average BOR=127) | | Fatehgarh Sahib (100 beds Average BOR=79) | | Gurdaspur (110 beds Average BOR=161) | | Hoshiarpur (200 beds Average BOR=76) | | Ludhiana (290 beds Average BOR=100) | | Moga (150 beds Average BOR=166) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | R | A | R | A | R | A | R | A | R | A | R | A |
| 1. | Bedsheets | 800 | 1,300 | 800 | 466 | 800 | 2,160 | 800 | 2,659 | 1,200 | 1,350 | 800 | 436 |
| 2. | Bedspreads | 1,200 | 0 | 1200 | 0 | 1,200 | 0 | 1,200 | 0 | 1,800 | 0 | 1,200 | 0 |
| 3. | Blankets Red and Blue | 50 | 181 | 50 | 25 | 50 | 150 | 50 | 273 | 100 | 144 | 50 | 95 |
| 4. | Patna towels | 300 | 0 | 300 | 0 | 300 | 0 | 300 | 0 | 1000 | 180 | 300 | 0 |
| 5. | Table cloth | 60 | 0 | 60 | 0 | 60 | 0 | 60 | 0 | 75 | 0 | 60 | 0 |
| 6. | Draw sheet | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 1,890 | 150 | 170 | 100 | 2 |
| 7. | Doctor's overcoat | 60 | 0 | 60 | 0 | 60 | 0 | 60 | 0 | 90 | 400 | 60 | 0 |
| 8. | Hospital worker OT coat | 250 | 0 | 250 | 0 | 250 | 0 | 250 | 185 | 400 | 0 | 250 | 0 |
| 9. | Patients house coat (for female) | 600 | 0 | 600 | 10 | 600 | 0 | 600 | 386 | 900 | 340 | 600 | 5 |
| 10. | Patients Pyjama (for male) Shirt | 300 | 0 | 300 | 0 | 300 | 58 | 300 | 170 | 400 | 0 | 300 | 0 |
| 11. | Over shoes pairs | 80 | 0 | 80 | 0 | 80 | 0 | 80 | 0 | 100 | 4,300 | 80 | 0 |
| 12. | Pillows | 300 | 80 | 300 | 0 | 300 | 0 | 300 | 2 | 450 | 437 | 300 | 13 |

[82] Wash or rinse freely with a stream or shower of water.

| Sr. No. | Name of linen article | Bathinda (200 beds Average BOR=127) | | Fatehgarh Sahib (100 beds Average BOR=79) | | Gurdaspur (110 beds Average BOR=161) | | Hoshiarpur (200 beds Average BOR=76) | | Ludhiana (290 beds Average BOR=100) | | Moga (150 beds Average BOR=166) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | R | A | R | A | R | A | R | A | R | A | R | A |
| 13. | Pillow covers | 600 | 80 | 600 | 0 | 600 | 0 | 600 | 150 | 900 | 357 | 600 | 34 |
| 14. | Mattress (foam) Adult | 200 | 116 | 200 | 100 | 200 | 110 | 200 | 200 | 300 | 330 | 200 | 82 |
| 15. | Paediatric Mattress | 20 | 0 | 20 | 0 | 20 | 0 | 20 | 10 | 40 | 0 | 20 | 8 |
| 16. | Abdominal sheets for OT | 150 | 0 | 150 | 0 | 150 | 0 | 150 | 1,050 | 200 | 280 | 150 | 0 |
| 17. | Perineal sheets for OT | 150 | 0 | 150 | 0 | 150 | 0 | 150 | 0 | 200 | 0 | 150 | 0 |
| 18. | Leggings | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 150 | 0 | 100 | 0 |
| 19. | Mortuary sheet | 50 | 0 | 50 | 0 | 50 | 0 | 50 | 0 | 70 | 295 | 50 | 0 |
| 20. | Mats (Nylon) | 100 | 0 | 100 | 0 | 100 | 0 | 100 | 0 | 200 | 0 | 100 | 0 |
| 21. | Mackintosh sheet (in metres) | 200 | 0 | 200 | 0 | 200 | 13 | 200 | 40 | 300 | 300 | 200 | 0 |
| **Type of linen available** | | | **5** | | **4** | | **5** | | **12** | | **13** | | **8** |
| **Type of linen not available** | | | **16** | | **17** | | **16** | | **9** | | **8** | | **13** |

*Source: Information furnished by test-checked DHs*
*R = Required; and A = Available.*
*Note: Average BOR pertained to the period 2016-2022, as depicted in* ***paragraph 3.2.7.***
***Colour code*: Green depicts 'Adequate/Excess', Yellow depicts 'Moderate' and Red depicts 'Not available/Inadequate'**

**Table 3.48(b)** shows that:

- Out of 21 types of required linen, 8 to 17 types of linen, especially bed spreads, patients' house coat (for female), Patients' pyjama-shirt (for male), paediatric mattress, etc. were not adequately available in DHs, especially in four DHs with high BOR (Moga: 166; Gurdaspur:161; Bathinda: 127; and Ludhiana: 100).

- Even the basic linen i.e. bedsheets in DHs at Fatehgarh Sahib and Moga; blankets in DH Fatehgarh Sahib; pillows and pillow covers in all test-checked DHs (except Ludhiana); mattresses (adult) in all test-checked DHs (except Hoshiarpur and Ludhiana); mattresses (paediatric) in all test-checked DHs, patient house coat (for female) and patient pyjama shirt (for male) in all test-checked DHs were not adequate in line with the norms *ibid*.

- As against the requirement of 100 over shoes pairs, 4,300 were available in DH Ludhiana, whereas no over shoes were available in other test-checked DHs. Similarly, in DH Hoshiarpur with average BOR of 76 *per cent*, 2,659 number of bedsheets were available against the requirement of 800 bedsheets, whereas in DH Moga with average BOR as high as 166 *per cent*, only 436 bedsheets were available against the requirement of 800 bedsheets.

Thus, non-availability or shortage of linen adversely affected the quality of IPD services where BOR was higher than the prescribed norms, which indicated that even the basic laundry services were not being provided to the patients in DHs.

The reply of the State Government was awaited (February 2024).

### 3.6.8 Bio-medical waste management

Bio-Medical waste means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological, including categories mentioned in the Schedule of the Bio-Medical Waste Management Rules.

As per Rule 4(r) of Bio-Medical Waste Management Rules, 2016, it shall be the duty of every occupier[83] to establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority. Healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report.

As per Schedule-IV under Rule 8(3) and (4), bio-medical waste containers or bags should be labelled as biohazard or cytotoxic. As per Rule 4(m), occupier shall "conduct health check up at the time of induction and at least once in a year for all its healthcare workers and others involved in handling of bio-medical waste and maintain the records for the same". As per Rule 4(h), occupier shall "immunise all its healthcare workers and others, involved in handling of bio-medical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste, in the manner as prescribed in the National Immunisation Policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time".

Availability of services as per BMW Rules in the test-checked health institutions is detailed in **Table 3.49.**

[83] "occupier" means a person having administrative control over the institution and the premises generating bio-medical waste, which includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratory, blood centre, healthcare facility and clinical establishment, irrespective of their system of medicine and by whatever name they are called.

**Table 3.49: Bio-Medical Waste Management services in test-checked Health Institutions**

| Name of Service | Bathinda | | | Fatehgarh Sahib | | | Gurdaspur | | | Hoshiarpur | | | Ludhiana | | | Moga | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | District Hospital | No of CHCs (02) | No of PHCs (04) | District Hospital | No of CHCs (02) | No of PHCs (04) | District Hospital | No of CHCs (02) | No of PHCs (04) | District Hospital | No of CHCs (02) | No of PHCs (04) | District Hospital | No of CHCs (02) | No of PHCs (04) | District Hospital | No of CHCs (02) | No of PHCs (04) |
| Authorisation for generating bio-medical waste was obtained by the hospital from State Environment Protection and Pollution Control Board | 1 | 2 | 2 | 1 | 1 | 4 | 1 | 1 | 4 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 3 |
| Availability of Waste Management Committee under the Chairmanship of head of hospital | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 2 | 4 |
| Waste Management Committee met regularly to review the performance of the hospital as regards waste disposal | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 1 | 1 | 2 | 4 |
| Availability of proper system for disposal of bio-medical liquid waste | 1 | 2 | 3 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 4 | 1 | 2 | 0 | 1 | 1 | 4 |
| Plastics bags which contained bio-medical waste had been labelled as per guidelines i.e. symbols for biohazard and cytotoxic | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 4 |
| The hospital and healthcare authorities had ensured that personal protective equipment was provided to waste handlers | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 4 |
| Availability of barcode system, for bags or containers containing biomedical waste that were to be sent out of the premises, was ensured by the hospital | 1 | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 3 | 1 | 0 | 2 | 0 | 2 | 4 | 1 | 2 | 4 |
| Periodic medical check-up and immunisation of staff were carried out. | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 4 | 1 | 2 | 4 |

*Source: Information furnished by test-checked health institutions*

***Colour Code*: Green depicts 'availability', Yellow depicts 'partial availability' and Red depicts 'non/least availability'**

It is evident from the above table that:

i. Authorisation for generating bio-medical waste was obtained by all test-checked hospitals, CHCs and PHCs except CHC Bassi Pathana, N. M. Singh and three[84] PHCs.

ii. Waste management committee was available and met regularly to review the performance of the hospital as regards waste disposal in all test-checked hospitals, CHCs and PHCs except 11[85] PHCs.

iii. Proper system for disposal of bio-medical liquid waste was available in all test-checked hospitals, CHCs and PHCs except CHC Bassi Pathana, Nihal Singh Wala and 10[86] PHCs.

iv. Plastics bags which contained bio-medical waste had been labelled as per guidelines i.e. symbols for bio-hazard and cytotoxic by all the test-checked health institutions except PHC Jodhpur Pakhar.

v. The hospital and healthcare authorities had ensured that personal protective equipment were provided to waste handlers in all the test-checked health institutions except two PHCs at Jodhpur Pakhar and Ranjit Bagh (Hoshiarpur).

vi. Barcode system, for bags or containers containing biomedical waste were ensured by all test-checked health institutions except DH Ludhiana, CHCs at Mahilpur, Shamchaurasi and four[87] PHCs.

vii. Periodic medical check-up and immunisation of staff was carried out by all the test-checked health institutions except CHC Shamchaurasi (Hoshiarpur) and five[88]PHCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### *3.6.8.1 Effluent Treatment Plant (ETP) for treatment and disposal of liquid waste in hospital*

Bio-Medical Waste Management Rules, 2016 prescribe that every institution shall ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from healthcare institutions, ensure treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act,

[84] PHCs at (i) Mandi Kalan; (ii) Jodhpur Pakhar; and (iii) Patto Hira Singh.

[85] PHCs at (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Jodhpur Pakhar; (iv) Nandpur Kalour; (v) Sanghol; (vi) Bhari; (vii) Nanowal; (viii) Ranjit Bagh; (ix) Ghawaddi; (x) Otalon; and (xi) Sowaddi Kalan.

[86] PHCs at (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Behrampur; (v) Ranjit Bagh; (vi) Ghawaddi; (vii) Mansuran; (viii) Otalon; (ix) Sowaddi Kalan; and (x) Nandpur Kalour.

[87] PHCs at (i) Jodhpur Pakhar; (ii) Dorangala; (iii) Paldi; and (iv) Possi.

[88] PHCs at (i) Jodhpur Pakhar; (ii) Ranjit Bagh; (iii) Paldi; (iv) Possi; and (v) Nandpur Kalour.

1974 (6 of 1974) and prescribes effluent treatment plant for liquid waste also. Sludge from Effluent Treatment Plant (ETP) shall be given to common bio-medical waste treatment facility for incineration or to hazardous waste treatment, storage and disposal facility for disposal.

Test-check of records of Punjab Pollution Control Board showed that out of 13,426 HCFs, 10,089 HCFs had installed system for pre-treatment of liquid waste with 1-2 *per cent* sodium hypochlorite. However, only 324 HCFs had provided ETPs for the final treatment of their liquid waste.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.6.9 Mortuary Services

As per IPHS 2012 norms, mortuary provides facilities for keeping dead bodies and conducting autopsy. Post-mortem room shall have stainless steel autopsy table with sink, a sink with running water for specimen washing and cleaning and cup-board for keeping instruments. A separate room for body storage shall be provided with at least two deep freezers for preserving body. One mortuary van should be available. Further, as per NHM Assessor's guidelines, the mortuary services and facility for pathological post-mortem (Standard A5.8) should be available. As per Standard E16.4, mortuary should have a system for categorising the dead bodies before preservation and mortuary technician has to maintain full records of body brought to mortuary; mortuary has system to provide identification tag/wrist band for each stored dead body; and all bodies sent to mortuary are accompanied with copy of death certificate issued by hospital. Mortuary has system for storage of unclaimed body for fixed duration as per State guidelines. Standard F4.2 provides that the facility ensures standard practices and materials for disinfection and sterilisation of instruments and equipment. Availability of healthcare infrastructure for mortuary services in test-checked DHs/RH is detailed in **Table 3.50.**

**Table 3.50: Availability of healthcare infrastructure for mortuary services in test-checked DHs/RH**

| Sr. No. | Particulars | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|---|
| 1. | Availability of mortuary facility in the hospital 24x7 | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2. | Stainless steel autopsy table with sink, a sink with running water for specimen washing and cleaning and cup-board for keeping instruments in post-mortem room | Yes | Yes | Yes | Yes | Yes | Yes | No |

| Sr. No. | Particulars | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|---|
| 3. | Availability of separate room for body storage provided with at least two deep freezers for preserving the body | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 4. | Mortuary van | No | Yes | Yes | Yes | No | No | No |
| 5. | Availability of facility for pathological post-mortem | Yes | Yes | Yes | No | Yes | No | No |
| 6. | System to categorise the dead bodies before preservation | Yes | Yes | Yes | No | Yes | Yes | No |
| 7. | System to provide identification tag/wrist band for each stored dead body | Yes | Yes | Yes | No | No | Yes | Yes |
| 8. | System for storage of unclaimed body for fixed duration | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 9. | Copy of death certificate accompanied with bodies sent to mortuary | Yes | Yes | Yes | No | No | No | No |
| 10. | Facility of high level disinfection by boiling or chemical done as per protocol at mortuary | Yes | Yes | Yes | Yes | Yes | Yes | No |

*Source: Information furnished by test-checked RH/DHs*

***Colour Code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

(i) All the test-checked district hospitals had 24x7 mortuary facility, and facility of separate room for body storage provided with at least two deep freezers for preserving the body was available in all DHs/RH. System for storage of unclaimed body for fixed duration was also available in all six test-checked DHs and RH Patiala.

(ii) System to provide identification tag/wrist band for each stored dead body was not available at DHs Gurdaspur and Hoshiarpur;

(iii) Stainless steel autopsy table with sink and facility for high level disinfection by boiling or using chemicals was not available in DH Moga;

(iv) Facility for pathological post-mortem was not available at DHs Gurdaspur, Ludhiana and Moga;

(v) Mortuary van was not available at DHs Hoshiarpur, Ludhiana, Moga and RH Patiala;

(vi) Death certificate did not accompany dead bodies sent to mortuary in four DHs[89];

(vii) System to categorise the dead bodies before preservation was not available at DHs Gurdaspur and Moga.

[89] DHs at (i) Gurdaspur; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.7 Water Supply

As per Kayakalp guidelines, availability of adequate water, sanitation and hygiene services are essential components of providing basic healthcare services in the healthcare institutions. Healthcare institutions need adequate supply of quality water. As per Bureau of Indian Standards (BIS), the water requirement in the hospital with bed strength not exceeding 100 is 340 litre/bed/day and exceeding 100, it is 400 litre/bed/day. Further as per IPHS 2012 norms, approximately 450 to 500 litres of water per bed per day is required for a district hospital. Moreover, physical testing (at least once in a year on samples obtained directly from the source e.g. well water and bore water) and microbiological testing (every three months and additionally when the source is changed/major repairs are done) are to be conducted.

All overhead tanks need to be manually cleaned at least at an interval of six months. The date of water tank cleaning needs to be written on the water tank for ready visibility and easy remembrance for next schedule of cleaning. Adequacy of water supply in the test-checked RH/DHs/CHCs/PHCs is detailed in **Table 3.51**.

**Table 3.51: Water Supply in test-checked health institutions**

| Name of District | Name of health institute | Assessment of water requirement per bed per day after excluding requirements for fire-fighting, horticulture and steam | Biological/Physical testing of water samples and maintenance of record | Maintenance of record related to water consumption, purification, complaints on water supply disruption/ downtime | Regularly cleaning of overhead water tank at prescribed interval | AMC of water purifiers |
|---|---|---|---|---|---|---|
| | **RH Patiala** | Yes | Yes | Yes | Yes* | Yes |
| **Bathinda** | DH, Bathinda | Yes | Yes | Yes | Yes | Yes |
| | CHC, Bhucho Mandi | No | No | No | Yes | No |
| | CHC, Mehraj | No | No | No | No | No |
| **Fatehgarh Sahib** | DH, Fatehgarh Sahib | Yes | Yes | Yes | Yes | Yes |
| | CHC, Bassi Pathana | No | Yes | Yes | Yes | Yes |
| | CHC, Amloh | No | No | No | Yes | No |
| **Gurdaspur** | DH, Gurdaspur | No | No | No | Yes | Yes |
| | CHC, Fatehgarh Churian | No | No | No | Yes | Yes |
| | CHC, Naushera Majja Singh | No | No | No | Yes | Yes |

| Name of District | Name of health institute | Assessment of water requirement per bed per day after excluding requirements for fire-fighting, horticulture and steam | Biological/Physical testing of water samples and maintenance of record | Maintenance of record related to water consumption, purification, complaints on water supply disruption/ downtime | Regularly cleaning of overhead water tank at prescribed interval | AMC of water purifiers |
|---|---|---|---|---|---|---|
| **Hoshiarpur** | DH, Hoshiarpur | No | Yes | No | No | Yes |
| | CHC, Mahilpur | No | No | No | Yes | Yes |
| | CHC, Shamchaurasi | No | Yes | Yes | No | Yes |
| **Ludhiana** | DH, Ludhiana | No | No | No | Yes | No |
| | CHC, Sidhwan Bet | No | No | No | No | No |
| | CHC, Sudhar | Yes | Yes | Yes | Yes | No |
| **Moga** | DH, Moga | No | Yes | No | Yes | Yes |
| | CHC, Bagha Purana | No | No | No | Yes | Yes |
| | CHC, Nihal Singh Wala | No | No | No | Yes | No |
| **PHCs (24)** | | **3 (Yes)** | **8 (Yes)** | **2(Yes)** | **11 (Yes)** | **6 (Yes)** |

*Source: Information furnished by test-checked health institutions*

** Record not made available.*

***Colour Code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

- Out of 43 selected health institutions, only in RH Patiala, two DHs[90], CHC Sudhar and three PHCs at Chakowal, Possi and Mand Bhandher made the assessment of water requirement per bed per day.
- DHs at Gurdaspur and Ludhiana did not carry out biological/physical testing of water samples. However, out of 12 CHCs, only three CHCs i.e. Shamchaurasi, Sudhar and Bassi Pathana and eight[91] PHCs carried out the same.
- Records related to water consumption, purification, complaints on water supply disruption were maintained properly at RH Patiala, two DHs[92] and three CHCs[93] and two PHCs at Possi and Mand Bhandher. As such, in the absence of biological/physical testing of water samples and non-maintenance of above record, quality of water supply could not be assessed.

[90] DHs at (i) Bathinda; and (ii) Fatehgarh Sahib.

[91] PHCs at (i) Nandpur Kalour; (ii) Nanowal; (iii) Paldi; (iv) Possi; (v) Mand Bhander; (vi) Ghawaddi; (vii) Mansuran; and (viii) Otalon.

[92] DHs at (i) Bathinda; and (ii) Fatehgarh Sahib.

[93] CHCs at (i) Shamchaurasi; (ii) Sudhar; and (iii) Bassi Pathana.

- Regular cleaning of overhead water tank at prescribed intervals was not carried out at DH Hoshiarpur, CHC at Mehraj, Sidhwan Bet and CHC Shamchaurasi and 13[94] PHCs.

- Out of the test-checked health institutions, AMC of water purifier was carried out in all test-checked RH/DHs (except DH Ludhiana), six CHCs and six[95] PHCs only.

The reply of the State Government was awaited (February 2024).

## 3.8 Power Supply

As per IPHS 2012 norms, back-up generator facility should be available at all institutions. Generator should be of good capacity. Generator of 75 KV in Civil Hospital and generator of 5 KV in CHCs should be maintained. PHCs should have power backup (Generator/Invertor/UPS) for OT. Further, AMC should be taken for all equipment which needs special care and preventive maintenance should be done to avoid break down and reduce down time of all essential and other equipment. Availability of power supply in the test-checked health institutions is detailed in **Table 3.52**.

**Table 3.52: Availability of power supply in test-checked health institutions**

| Name of District | Name of health facility | Availability of 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator | Installation of 5 KVA generator | Generator/ Invertor/ UPS | AMC of available backup facility like generators and inverters |
|---|---|---|---|---|---|
| Bathinda | DH Bathinda | Available | NA | NA | Available |
| | CHC (2) | NA | 2 | NA | 1 \| 1 |
| | PHC (4) | NA | NA | 3 \| 1 | 3 |
| Fatehgarh Sahib | DH Fatehgarh Sahib | Available | NA | NA | Available |
| | CHC (2) | NA | 1 \| 1 | NA | 1 |
| | PHC (4) | NA | NA | 2 \| 2 | 2 |
| Gurdaspur | DH Gurdaspur | Available | NA | NA | Available |
| | CHC (2) | 2 | NA | NA | 2 |
| | PHC (4) | NA | NA | 0 | - |
| Hoshiarpur | DH Hoshiarpur | Available | NA | NA | Available |
| | CHC (2) | NA | 2 | NA | 1 \| 1 |
| | PHC (4) | NA | NA | 4 | 3 \| 1 |

[94] PHCs at (i) Mandi Kalan; (ii) Lehra Mohabbat; (iii) Nandpur Kalour; (iv) Bhari; (v) Nanowal; (vi) Ranjit Bagh; (vii) Behrampur; (viii) Dorangla; (ix) Dhianpur; (x) Swaddi Kalan; (xi) Thathi Bhai; (xii) Sukhanand; and (xiii) Malianwala.

[95] PHCs at (i) Mandi Kalan; (ii) Chakowal; (iii) Paldi; (iv) Possi; (v) Mand Bhander; and (vi) Otalon.

| Name of District | Name of health facility | Availability of 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator | Installation of 5 KVA generator | Generator/ Invertor/ UPS | AMC of available backup facility like generators and inverters |
|---|---|---|---|---|---|
| Ludhiana | DH Ludhiana | Available | NA | NA | Not Available |
| | CHC (2) | NA | 2 | NA | 1 1 |
| | PHC (4) | NA | NA | 1 3 | 1 |
| Moga | DH Moga | Available | NA | NA | Not Available |
| | CHC (2) | NA | 2 | NA | 1 1 |
| | PHC (4) | NA | NA | 1 3 | 1 |

*Source: Information furnished by test-checked Health Institutions* NA=Not applicable

***Colour code:***

| Availability | Non-availability |
|---|---|

It was observed that 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator was available in all the test-checked DHs. AMC of backup facility like generators and inverters was not available in DH Ludhiana and DH Moga. Uninterrupted stabilised power supply was available in test-checked CHCs except CHC Bassi Pathana. But AMC of generator was not available at four CHCs at Bhucho Mandi, Shamchaurasi, Sidhwan Bet and Nihal Singh Wala. Out of test-checked 24 PHCs, power back-up was available in 11 PHCs (46 *per cent*) only and AMC of generator was not taken by PHC Possi.

The reply of the State Government was awaited (February 2024).

## 3.9 Infection Control Management

As per Kayakalp guidelines, hospitals need to designate personnel from the Infection Control Committee, to conduct the activities of monitoring of cleanliness. The person designated for monitoring will take daily rounds after each cleaning cycle and will also conduct surprise rounds of the hospital to ensure proper cleanliness and identify any areas for improvement in the current practices. He/She will also be responsible for supervision of housekeeping activities by countersigning the checklists used for monitoring. All the checklists should be displayed at relevant areas and should be customised to the particular area. Health institute needs to have an effective pest control plan for ensuring a pest and animal free environment in the institute. Availability of infection control services in test-checked hospitals is detailed in **Table 3.53**.

**Table 3.53: Availability of infection control services in RH/DHs**

| Particulars | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|
| Availability of Standard Operating Procedure (SOP) | Y | Y | N | N | Y | Y | N |
| Checklist for hygiene and infection control | Y | Y | N | N | Y | N | N |
| Hospital Infection Control Committee (HICC) | Y | Y | N | Y | Y | Y | Y |
| Pest control | Y | Y | N | Y | Y | N | Y |
| Rodent control | Y | Y | N | Y | Y | N | Y |

*Source: Information furnished by test-checked health institutions (Y=Yes, N=No)*

***Colour code:***

| Availability | Non-availability |
|---|---|

It was observed that:

- SOPs for prevention of infection were prepared in all the test-checked RH/DHs except three DHs[96].
- Checklist for hygiene and infection control was not maintained in DHs Fatehgarh Sahib, Gurdaspur, Ludhiana and Moga. Infection Control Committee was not available in DH Fatehgarh Sahib. In DH Ludhiana, the Hospital Infection Control Committee was formed in January 2018; and
- In respect of DHs, pest and rodent control practices were not followed in two DHs Fatehgarh Sahib and Ludhiana.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.10 Cleaning Services

NHM Assessor's Guidebook requires that the hospitals should ensure decontamination of functional areas.

Audit observed that out of the 43 test-checked health institutions (RH/DHs/CHCs/PHCs), RH Patiala and six DHs outsourced the cleaning services to private vendors/firms. The remaining 12 CHCs and 24 PHCs hired persons locally for cleaning work. Deficiencies in cleaning services in health institutions noticed during joint inspection are detailed in **Table 3.54.**

[96] DHs at (i) Fatehgarh Sahib; (ii) Gurdaspur; and (iii) Moga.

**Table 3.54: Position of cleaning services in the healthcare institutions**

| Sr. No. | Particulars related to cleaning | No. of health institutions | |
|---|---|---|---|
| | | RH Patiala and DHs (7) | CHCs (11*) |
| 1. | Cleaning register was maintained and kept in every ward | 5 | 3 |
| 2. | Cleaning was found entered regularly in cleaning register | 5 | 3 |
| 3. | Stock of cleaning material was kept in the ward | 5 | 7 |
| 4. | Floors, walls, roofs and rooftops were kept neat and clean | 5 | 10 |
| 5. | Furniture and fixture were kept neat and clean | 5 | 10 |
| 6. | Toilets, sinks and water taps were kept neat and clean | 5 | 10 |

*Source: Information furnished by test-checked RH/DHs/CHCs*

** Record was not produced by CHC Nihal Singh Wala.*

*Note: Position of cleaning services in PHCs in respect of above parameters could not be ascertained.*

***Colour code:***

**Availability in most health institutions**
**Availability in some health institutions**
**Availability in least health institutions**

Audit noticed that none of the above services/records were available in DHs Fatehgarh Sahib and Gurdaspur. In eight CHCs[97], neither the cleaning register was being maintained nor were entries of cleaning being recorded in cleaning registers. In four CHCs[98] stock of cleaning material was not kept in the ward and in CHC Fatehgarh Churian, floors, walls, roofs, rooftops, furniture and fixture, toilets, sinks and water taps were not neat and clean. Thus, hygienic conditions to the patients were compromised exposing them to the risk of infection.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.11 Patient Safety

### 3.11.1 Availability of patient safety services in test-checked health institutions

IPHS 2012 norms for DHs provide that Hospital Management Policy should lay emphasis on hospital buildings with earthquake proof, flood proof and fire protection features.

As per Outcome 4.1 of National Disaster Management (NDM) Guidelines (Hospital Safety), 2016 "Once the detailed plans for preparedness, response

[97] (i) Mehraj; (ii) Amloh; (iii) Bassi Pathana; (iv) Fatehgarh Churian; (v) Naushera Majja Singh; (vi) Shamchaurasi; (vii) Sidhwan Bet; and (viii) Bagha Purana.

[98] (i) Amloh; (ii) Bassi Pathana; (iii) Fatehgarh Churian; and (iv) Naushera Majja Singh.

and recovery have been developed, these need to be tested on ground and accordingly the shortfalls/gaps need to be reduced by altering and updating the same." As per Rule 4.8, "Every hospital shall ensure the continuity of essential services in all the circumstances by ensuring adequate resources and hospital supplies, developing and ensuring back-up arrangement of utility services, having a deployable evacuation plan, coordinating and networking with neighbouring hospitals/healthcare institutions that can facilitate in continuing the essential services of the hospitals during the emergencies." Further, as per Rule 8(2), "Hospitals shall acquire No Objection Certificate from the Chief Fire Officer."

National Building Code of India, 2016 (Part 4), Fire and Life Safety require that fire extinguishers must be installed in every hospital so that the safety of the patients/attendants/visitors and the hospital staff may be ensured in case of any fire in the hospital premises.

Further, NHM Assessor's Guidelines provide that the facility should have a disaster management plan in place and the staff is aware of disaster plan and their role and responsibilities in the event of a disaster is defined. License for storing spirit should be available with the health facility.

IPHS norms for DHs also suggest that Fluorescent Fire Exit plan should be displayed at each floor. Availability of patient safety services in the test-checked RH/DHs is detailed in **Table 3.55**.

**Table 3.55: Availability of services related to patient safety in RH/ DHs**

| Name of service | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|
| SOP is being followed in patient safety | Yes | Yes | Yes | No | No | Yes | Yes |
| Disaster management plan formulated for patient safety | Yes | Yes | Yes | No | No | Yes | Yes |
| Formation of disaster management committee | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Facility assigned a space or ward to manage additional patient load in the event of a disaster | Yes | Yes | Yes | No | No | No | Yes |
| Follow a periodic plan to evaluate and manage disasters and mass casualty incidents | Yes | Yes | No | No | Yes | Yes | Yes |
| Standard Operating Procedure for all concerned departments to act in an event of a disaster | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Facility connected to network of referral facilities that will be necessary in a disaster | No | Yes | Yes | No | Yes | Yes | Yes |
| Provisions of detection, fire prevention, planning for isolation of fire and transfer of occupants to a place of comparative safety or evacuation of the occupants to achieve ultimate safety were in place | Yes | Yes | Yes | No | No | Yes | Yes |

| Name of service | RH Patiala | DH Bathinda | DH Fatehgarh Sahib | DH Gurdaspur | DH Hoshiarpur | DH Ludhiana | DH Moga |
|---|---|---|---|---|---|---|---|
| No Objection Certificates required to be obtained from the Fire Department | Yes | No | Yes | Yes | No | No | Yes |
| Illuminated signage for fire exit was available | Yes | Yes | No | Yes | Yes | Yes | Yes |
| Availability of underground static water tank which should remain full at all times to meet any contingency had been constructed and utilised for the said purpose | Yes | Yes | No | No | No | Yes | Yes |
| Fire alarms and hose reel had been installed to detect the fire and meet any contingency | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Excise permit to store spirit | Yes | No | No | No | No | No | Yes |

*Source: Information furnished by test-checked RH/DHs*

***Colour code*: Green depicts 'availability' and Red depicts 'non-availability'**

Similarly, availability of patient safety services in test-checked CHCs is detailed in **Table 3.56.**

**Table 3.56: Availability of services related to patient safety in CHCs**

| Name of service | Bhucho Mandi | Mehraj | Bassi Pathana | Amloh | Fatehgarh Chaurian | N. M. Singh | Mahilpur | Shamchaurasi | Sidhwan Bet | Sudhar | Bagha Purana | Nihal Singh Wala |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOP is being followed in patient safety | Yes | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| Disaster management plan formulated for patient safety | No | No | Yes | Yes | No | No | No | Yes | Yes | No | No | No |
| Formation of disaster management committee | No | No | No | Yes | No | No | No | Yes | No | Yes | No | No |
| Facility assigned a space or ward to manage additional patient load in the event of a disaster | Yes | No | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No | No |
| Follow a periodic plan to evaluate and manage disasters and mass casualty incidents | Yes | No | Yes | No | No | No | No | Yes | Yes | Yes | No | No |
| Standard Operating Procedure for all concerned departments to act in an event of a disaster | No | No | Yes | Yes | No | No | No | No | Yes | Yes | No | No |
| Facility connected to network of referral facilities that will be necessary in a disaster | Yes | No | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes | Yes | No |
| Provisions of detection, fire prevention, planning for isolation of fire and transfer of occupants to a place of comparative safety or evacuation of the occupants to achieve ultimate safety were in place | No | No | Yes | Yes | No | No | No | No | No | Yes | No | No |
| No Objection Certificates required to be obtained from the Fire Department | No | No | No | No | Yes | Yes | No | No | Yes | No | No | No |

| Name of service | Bhucho Mandi | Mehraj | Bassi Pathana | Amloh | Fatehgarh Chaurian | N. M. Singh | Mahilpur | Shamchaurasi | Sidhwan Bet | Sudhar | Bagha Purana | Nihal Singh Wala |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Illuminated signage for fire exit was available | No | Yes | No | No | Yes | Yes | No | No | No | No | No | No |
| Availability of underground static water tank which should remain full at all times to meet any contingency had been constructed and utilised for the said purpose | No | Yes | No | No | Yes | No | No | No | No | No | No | No |

*Source: Information furnished by test-checked CHCs*

***Colour code*: Green depicts 'availability' and Red depicts 'non availability'**

The reply of the State Government was awaited (February 2024).

### 3.11.2 Availability of fire-fighting equipment

As per IPHS 2012 norms, fire-fighting equipment should be available, maintained and be readily available whenever required. Availability of fire-fighting equipment in the test-checked health institutions is given in **Table 3.57**.

**Table 3.57: Availability of fire-fighting equipment in test-checked health institutions**

| Name of District | Name of health institution | Fire hydrant | Smoke detector | Fire extinguisher | Sand buckets |
|---|---|---|---|---|---|
| Patiala | RH Patiala | Available | Available | Available | Available |
| Bathinda | DH Bathinda | Available | Available | Available | Not available |
| Fatehgarh Sahib | DH Fatehgarh Sahib | Available | Available | Available | Not available |
| Gurdaspur | DH Gurdaspur | Available | Available | Available | Not available |
| Hoshiarpur | DH Hoshiarpur | Available | Available | Available | Not available |
| Ludhiana | DH Ludhiana | Available | Available | Available | Not available |
| Moga | DH Moga | Available | Not available | Available | Not available |
| Bathinda | CHC Bhucho Mandi | Not applicable | | Available | Not available |
| | CHC Mehraj | | | Available | Available |
| Fatehgarh Sahib | CHC Bassi Pathana | | | Available | Not available |
| | CHC Amloh | | | Available | Not available |
| Gurdaspur | CHC Fatehgarh Churian | | | Available | Not available |
| | CHC, Naushera Majja Singh | | | Available | Not available |
| Hoshiarpur | CHC Mahilpur | | | Available | Not available |
| | CHC Shamchaurasi | | | Available | Available |

| Name of District | Name of health institution | Fire hydrant | Smoke detector | Fire extinguisher | Sand buckets |
|---|---|---|---|---|---|
| Ludhiana | CHC Sidhwan Bet | | | Available | Not available |
| | CHC Sudhar | | | Available | Not available |
| Moga | CHC Bagha Purana | | | Available | Not available |
| | CHC Nihal Singh Wala | | | Available | Not available |
| PHCs (24), fire-fighting equipment available in | | | | **7** | **2** |

*Source: Information furnished by test-checked health institutions*
***Colour code*: Green depicts 'availability' and red depicts 'non-availability'**

It was observed that:

Fire hydrants and fire extinguishers were found available in all the test-checked RH/DHs. Sand bucket was not available in any test-checked DHs, however, it was available in RH Patiala.

Fire extinguishers were available in all the test-checked CHCs and in case of PHCs, it was available in seven PHCs[99] only. Out of test-checked CHCs/ PHCs, Sand buckets were available in two CHCs (Mehraj and Shamchaurasi) and two PHCs (Paldi and Mand Bhandher) only.

Thus, non-availability of adequate fire safety services at health institutions could result in loss of precious lives of patients, attendants, visitors and hospital staff besides damage to the property in case of fire exigency.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.12 Working of Drug De-addiction Centre

To battle the menace of drugs in Punjab by treating and rehabilitating addicts, Drug De-addiction Centres (DDC) and Drug Rehabilitation Centres (DRC) were established in the State. Further, in order to provide treatment and aftercare to substance users, Government of Punjab (GoP) framed (January 2011) the Punjab Substance Use Disorder Treatment and Counseling and Rehabilitation Centres Rules, 2011 (Rules), and set up five Model Drug De-addiction Centres (MDDC), 36 DDCs and 19 DRCs in the State.

[99] PHCs at (i) Possi; (ii) Mand Bhadher; (iii) Chakowal; (iv) Mansuran; (v) Patto Hira Singh; (vi) Sukha Nand; and (vii) Thathi Bai.

### 3.12.1 Treatment in Drug De-addiction Centres

Position of registration of drug addict patients of five selected DHs and RH Patiala except DH Moga (where no drug de-addiction centre was available) during the period 2016-2021 is depicted in **Table 3.58**.

**Table 3.58: Position of registration of drug addict patients during 2016-2021**

| Health institution (DH/GMCH) | Total number of patients visited OPD | Admitted in IPD | Completed their course (out of IPD) | Discharged on request without completion of course | LAMA | Absconding |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 (4+5+6+7) | 4 | 5 | 6 | 7 |
| Bathinda[100] | 34,345 | 3,541 | 1,237 | 841 | 892 | 503 |
| Fatehgarh Sahib[101] | 39,922 | 1,145 | 699 | 0 | 366 | 43 |
| Gurdaspur | 9,658 | 760 | 539 | 38 | 143 | 40 |
| Hoshiarpur | 10,539 | 1,724 | 1,556 | 0 | 158 | 10 |
| Ludhiana | 1,29,801 | 1,583 | 391 | 805 | 289 | 98 |
| RH Patiala | 11,510 | 1,446 | 1,282 | 0 | 164 | 0 |
| **Total** | **2,35,775** | **10,199** | **5,704** | **1,684** | **2,012** | **694** |

*Source: Test-checked DDCs*

***Colour Code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate performance' and Red depicts 'poor performance'**

From above, it may be seen that out of total 2,35,775 OPD patients, 10,199 patients were admitted in the healthcare centres of which only 5,704 (56 *per cent*) completed their course. Of the remaining 4,495 patients, 1,684 (17 *per cent*) patients were discharged on request without completing the course of de-addiction whereas 2,012 patients (20 *per cent*) left against medical advice (LAMA) and 694 patients (7 *per cent*) absconded during 2016-2021. Thus, the objective of setting-up of DDCs for providing comprehensive treatment to each addicted person could not be fully achieved.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.12.2 Shortage of staff in DDC

Rule 14(C)(1) of the above Rules prescribes that one part time doctor, two counsellors, four staff nurses, three ward attendants and three security guards were required for proper functioning of substance use disorder treatment centre.

[100] 68 patients were under treatment as of March 2021.

[101] 37 patients were referred to other DDC.

In the test-checked six DDCs, Audit noticed the following:

- Two doctors in DDC Patiala and one doctor in DDC Ludhiana were posted in excess.
- One counsellor was short each in DDC Fatehgarh Sahib, Gurdaspur and Hoshiarpur.
- One staff nurse was short in DDC Gurdaspur whereas one staff nurse was posted in excess in RH Patiala.
- Two ward attendants were short in DDC Fatehgarh Sahib and one each in DDC Gurdaspur and Hoshiarpur. However, two ward attendants were posted in excess in DDC Bathinda.
- One security guard was posted in excess each in Bathinda, Ludhiana and Patiala, whereas no security guard posted in Gurdaspur.

The above position is indicative of lack of optimum utilisation of available human resources. Shortage of staff also affected the working of DDCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.12.3 Drug Rehabilitation Centres

After detoxification in a Drug De-addiction Centre, patients with substance abuse are shifted in the Drug Rehabilitation Centres (DRC) where food, medicine (as per requirement), stay, counseling by a qualified counsellor and recreational facilities are available.

The position of detoxified persons admitted in DRC in four[102] selected DHs (except DH Ludhiana and RH Patiala where no DRC was available) during the period 2016-2021 is given in **Table 3.59**.

**Table 3.59: Position of detoxified persons admitted in DRC**

| DH/GMCH | Number of drug addict patients detoxified from DDC | Number of detoxified patients admitted in DRC | Discharge after completing the course | LAMA | Absconding |
|---|---|---|---|---|---|
| **1** | **2** | **3 (4+5+6)** | **4** | **5** | **6** |
| Bathinda | 1,237 | 608 | 231 | 327 | 50 |
| Fatehgarh Sahib[103] | 699 | 599 | 201 | 368 | 27 |
| Gurdaspur | 539 | 366 | 77 | 279 | 10 |
| Hoshiarpur | 1,556 | 434 | 320 | 114 | 0 |
| **Total** | **4,031** | **2,007** | **829** | **1,088** | **87** |

*Source: Test-checked DRCs*

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate performance' and Red depicts 'poor performance'**

[102] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; and (iv) Hoshiarpur.

[103] Three cases were referred.

**Table 3.59** shows that:

- Out of 4,031 detoxified patients, only 2,007 patients (50 *per cent*) were admitted in DRCs.
- Out of 2,007 admitted patients, only 829 patients (41 *per cent*) completed their course whereas 1,088 patients (54 *per cent*) left the course against medical advice (LAMA) and 87 patients (5 *per cent*) absconded during the audit period. LAMA and Absconding cases could be attributed to shortage of staff in DRCs, as discussed in the succeeding paragraph.

Thus, the objective of setting-up of DRCs for providing comprehensive treatment to each addicted person could not be fully achieved.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.12.4 Shortage of staff in DRC

Rule 14(C)(2) of the above Rules states that one programme officer/project director, three social workers/counsellors, three ward attendants, two security guards were required for proper functioning of Disorder Treatment and Counseling and Rehabilitation Centre.

During test-check of four[104] DRCs for the audit period, Audit noticed the following:

- No programme officer was posted in DRC Fatehgarh Sahib and Hoshiarpur.
- Six[105] counsellors were found short in four DRCs.
- One ward attendant each in DRCs Fatehgarh Sahib and Gurdaspur was short whereas one ward attendant was posted in excess each in DRCs Bathinda and Hoshiarpur.
- No security guard was posted in DRC Gurdaspur whereas nine security guards were posted in excess in three[106] DRCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.13 Display of Citizen Charter and other boards

As per IPHS 2012 norms, Citizens' Charter should be prominently displayed near the entrance of the facility. Further, the building should have a prominent board displaying the name of the Centre in the local language at the gate and

[104] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; and (iv) Hoshiarpur. DRC was not working under RH Patiala and DRC was not available in Ludhiana district.

[105] Bathinda-1; Fatehgarh Sahib-2; Gurdaspur-2; and Hoshiarpur-1.

[106] Bathinda-3, Fatehgarh Sahib-1 and Hoshiarpur-5.

on the building. It should also have prominent display boards in local language providing information regarding the services available/user charges/fee and the timings of the centre. Relevant Information, Education and Communication (IEC) material shall be displayed at strategic locations. Citizen Charter including patient rights and responsibilities shall be displayed at OPD and Entrance in local language.

During joint inspection, it was noticed that Citizen Charter was not established/displayed in one DH Gurdaspur, four CHCs[107] and 19 PHCs[108].

In the remaining 19 health institutions, the requisite information was not found displayed in the Citizen Charter, as depicted in **Table 3.60** and ***Appendix 3.4.***

**Table 3.60: Details of information not displayed in the Citizen Charter**

| Sr. No. | Information not provided in the Citizen Charter | Out of | | |
|---|---|---|---|---|
| | | Five DHs and RH Patiala | Eight CHCs | Five PHCs |
| 1. | Availability of OPD services and their timings (department-wise) | 0 | 2 | 0 |
| 2. | Availability of diagnostic services | 1 | 2 | 0 |
| 3. | Availability of emergency and trauma care services and mode of approach thereof | 0 | 0 | 2 |
| 4. | Availability of ambulance services | 1 | 4 | 2 |
| 5. | Responsibilities of users | 1 | 2 | 1 |
| 6. | Services not available at the facility level | 4 | 7 | 5 |
| 7. | Equipment not in order | 4 | 8 | 5 |
| 8. | Services available to BPL patients | 1 | 6 | 1 |

*Source: Joint Inspection of test-checked hospitals*

***Colour code*: Green depicts 'most availability', Yellow depicts 'moderate' and Red depicts 'least availability'**

Further, the requisite display boards were also not available in some health institutions, as detailed in **Table 3.61** and ***Appendix 3.5.***

**Table 3.61: Position of other display boards**

| Sr. No. | Particulars of other display boards | Out of | | |
|---|---|---|---|---|
| | | Hospitals (Seven) | CHCs (12) | PHCs (22*) |
| 1. | Adequate number of notice boards detailing the location of all the services/departments/ wards was not available | 0 | 3 | 13 |
| 2. | Display board was not in simple local language | 0 | 0 | 9 |

[107] (i) Bassi Pathana; (ii) Fatehgarh Churian; (iii) Sudhar; and (iv) Nihal Singh Wala.

[108] (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Bhairupa; (iv) Jodhpur Pakhar; (v) Nandpur Kalour; (vi) Sanghol; (vii) Bhari; (viii) Nanowal; (ix) Behrampur; (x) Dhianpur; (xi) Dorangla; (xii) Ranjit Bagh; (xiii) Ghawaddi; (xiv) Mansuran; (xv) Sowaddi Kalan; (xvi) Otalon; (xvii) Sukhanand; (xviii) Thathi Bhai; and (xix) Malianwala.

| Sr. No. | Particulars of other display boards | Out of | | |
|---|---|---|---|---|
| | | Hospitals (Seven) | CHCs (12) | PHCs (22*) |
| 3. | Display board was not followed at all levels | 0 | 1 | 9 |
| 4. | The facility does not display the services and entitlements available in its departments | 2 | 3 | 13 |
| 5. | Health institutions does not display rights of patients | 2 | 5 | 15 |
| 6. | User charges were not displayed | 1 | 2 | 16 |

*Source: Joint Inspection of test-checked hospitals*

** PHC Jodhpur Pakhar was not functional and joint inspection of PHC Malianwala could not be done due to non-availability of Medical Officer.*

***Colour code*: Green depicts 'most availability', Yellow depicts 'moderate availability' and Red depicts 'least availability'**

Due to non-display of citizens charter and other display boards at the health institutions, patients, attendants and visitors could not be made aware of their rights and responsibilities while visiting health institutions.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

## 3.14 Monitoring mechanism

### 3.14.1 Village Health Sanitation and Nutrition Committee

As per Village Health Sanitation and Nutrition Committee (VHSNC) guidelines, one VHSNC is required to be constituted for every inhabited revenue village and these VHSNCs were required to meet at least once in a month for carrying out defined activities like creating awareness, preparation of village health plan and analysis of key issues and problems. The details of VHSNCs constituted and number of meetings held during 2016-2021 are given in **Table 3.62.**

**Table 3.62: Details of VHSNCs constituted and number of meetings held during 2016-2021**

| Year | Total number of VHSNCs constituted | Number of VHSNCs meetings required to be conducted during the year | Number of VHSNCs meetings conducted during the year | Shortfall (*percentage*) |
|---|---|---|---|---|
| 2016-17 | 12,956 | 1,55,472 | 1,12,543 | 42,929 (28) |
| 2017-18 | 12,956 | 1,55,472 | 1,43,680 | 11,792 (8) |
| 2018-19 | 12,956 | 1,55,472 | 1,41,257 | 14,215 (9) |
| 2019-20 | 12,982 | 1,55,784 | 86,693 | 69,091 (44) |
| 2020-21 | 12,982 | 1,55,784 | 87,906 | 67,878 (44) |

*Source: State Health Society data*

***Colour code*: Green depicts 'least shortfall' and Yellow depicts 'moderate shortfall'**

**Table 3.62** shows that though required number of VHSNCs were constituted but there was a shortfall ranging between 8 *per cent* and 44 *per cent* in the number of meetings held during the period from 2016-17 to 2020-21, which could affect the qualitative performance of activities.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

### 3.14.2 Supervision and Inspections

#### *(a) Internal Audit*

As per IPHS 2012 norms, Internal Audit of the services available in the hospital should be conducted on a regular basis (preferably quarterly) through hospital monitoring committee. The committee shall comprise Civil Surgeon/CMO, Medical Superintendent, Deputy Medical Superintendent, Departmental in charge, Nursing Administrator and Hospital Manager. The findings of audit shall be discussed in meetings of hospital monitoring committee and corrective and preventive action shall be taken.

Audit, however, noticed that no internal audit was conducted in any of the test-checked DHs during 2016-2021.

#### *(b) Medical Audit*

As per IPHS 2012 norms, medical audit committee shall be constituted in the hospital. Audit shall be conducted on regular basis (preferably monthly). Sample size for audit shall be decided and records of patients shall be selected randomly. Records shall be evaluated for completeness against standard content format, clinical management of a particular case.

However, no medical audit was conducted in any of the test-checked health facilities except DH Ludhiana during 2016-2021.

#### *(c) Social Audit*

The social audit is conducted with the objectives to look into the process of implementing the project, assess the quality of the infrastructure created; assess the basic services provided; and the satisfaction of the beneficiaries on the benefits provided. As per IPHS 2012 norms, social audit is required to be conducted through Rogi Kalyan Samitis (RKS)/Hospital Management Committee (HMC), etc. with involvement of Panchayati Raj Institutions (PRI) and other stakeholders as per the guidelines issued by the Government of India. However, no social audit was conducted in any of the selected health facility except DH Ludhiana during 2016-2021.

### *(d) Disaster Preparedness Audit*

The Disaster Preparedness Audit through RKS was not conducted in any of the test-checked DHs during 2016-2021, as required under IPHS 2012 norms.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

Had the above supervision and inspection been got done, various inconsistencies in the healthcare institutions, as discussed in this Report, could have been better monitored.

## 3.15 Conclusion

OPD services were available in all the test-checked health institutions but ENT OPD service in DH Sri Muktsar Sahib, General Medicine in DHs at Fazilka and Sri Muktsar Sahib, General Surgery in DH Sri Muktsar Sahib, Ophthalmology in DH Malerkotla, Obstetrics & Gynaecology in DHs at Fazilka and Malerkotla, and Psychiatry OPD service in DH Amritsar were not available. Dental OPD service was not available in test-checked GMCH Patiala (RH Patiala). However, all required OPD specialist services were not available in test-checked CHCs except CHCs at Mahilpur, Shamchaurasi and Sudhar. OPD services were available in all the test-checked PHCs except PHC Jodhpur Pakhar. Moreover, AYUSH services were not available in most of the test-checked CHCs/PHCs. The availability of doctors was not ensured as per the patient load in the health institutions. Registration and pharmacy counters were also not found adequate in DHs besides non-availability of online registration facility in any healthcare institutions.

All IPD services were available in selected DHs except Psychiatric service in DH Bathinda. Complete IPD services, except for General Medicine, were not available in test-checked CHCs. Moreover, IPD services as well as beds for IPD were not available in eight and fifteen PHCs respectively. Radiotherapy, Nephrology, Neurosurgery and Neurology IPD services were also not available in RH Patiala. Negative/Positive isolation room was not available in test-checked RH/DHs except DH Gurdaspur. Posting of surgeons in DHs were not ensured according to surgery load. Moreover, piped suction and medical gases, heating, air-conditioning, ventilation, etc. in Operation Theatre (OT) was not available in half of the test-checked DHs and OT facility was not available in four CHCs and any test-checked PHCs.

The Bed Occupancy Rate (BOR) in all the test-checked DHs was above 80 *per cent* except DHs at Fatehgarh Sahib and Hoshiarpur. It was significantly high in DHs at Moga and Gurdaspur. Efficiency of the hospital as indicated by Bed Turnover Rate (BTR) was found on lower side in DH Fatehgarh Sahib and RH Patiala, and higher side in DHs Gurdaspur and Moga.

Discharge rate was lower in DHs at Bathinda, Fatehgarh Sahib and Hoshiarpur indicating that these hospitals were under-performing. Referral Out Rate (ROR) in DH Gurdaspur was on higher side which indicated that healthcare facilities were not adequate in this hospital. Leave against medical advice (LAMA) rate in DHs Fatehgarh Sahib, Gurdaspur and Ludhiana, and absconding rate in DH Fatehgarh Sahib was alarmingly high which shows that these hospitals could not gain trust of patients.

In emergency services, it was noticed that availability of Emergency Operation Theatre for Maternity, Orthopaedic Emergency, Burns and Plastic Surgery and Neurosurgery cases round the clock was not available in four DHs. Congestive Heart Failure service in nine CHCs, Left Ventricular Failure and Meningoencephalitis service in 11 CHCs were not available. Facility of 24 hours management of emergency services such as accident, first aid, stitching of wounds, etc. were available only in eight out 24 test-checked PHCs.

Adequate drugs were not found available in the State during COVID-19 period and excess expenditure was also incurred by RH Patiala on purchase of oxygen cylinders due to non-renewal of Liquid Medical Oxygen (LMO) storage license timely.

In maternity services, institutional births in public health facilities remained at 50 *per cent* during the period 2016-2022 and deliveries in private health facilities were increasing year to year. Labour room facility was not found available in eight PHCs. C-Section deliveries were also seen higher than norms prescribed by WHO. National guidelines for Prevention of Parent-to-Child Transmission of HIV were not adhered to in 18 *per cent* cases. Further, there was shortfall in conducting review of maternal deaths and neonatal deaths during 2016-17 to 2021-22.

Among line and support services, health institutions up to CHC level were performing well in providing few services, while improvement was needed in most of the other services. ICU services in DHs of the State except at Fazilka, Gurdaspur, Jalandhar, Sri Muktsar Sahib and SAS Nagar were not available. In diagnostic services, radiological service *viz.* Radiology (except X-ray and ultrasonography), Cardiology (except ECG), Endoscopy and Respiratory were not available in DHs and Cardiac Investigation (ECG) was also not available in half of the test-checked CHCs as required under IPHS norms. Complete range of tests under pathology services was not available in any of the test-checked health institutions and Blood storage facility was not available in any test-checked CHCs except CHC Sudhar.

Dietary service was not being provided by any test-checked health institution to IPD patients except patients admitted under Janani Shishu Suraksha

Karyakram (JSSK). Further, most of the CHCs and PHCs are required to improve in all these services especially in adequate supply of quality water and power supply. Internal control and monitoring were also found inadequate.

## 3.16 Recommendations

In light of the audit findings, the State Government may:

*(i) ensure availability of basic facilities, registration and pharmacy counters in OPDs of each hospital at all levels, and ensure availability of doctors as per patient load in the health institutions;*

*(ii) ensure that all OPD services, IPD services, emergency services, OT services, maternity services and ICU services as prescribed under IPHS norms for different health institutions are made available to the beneficiaries;*

*(iii) create infrastructure for Kangaroo Mother Care (KMC) and storage facility for expressed breast milk in the hospitals;*

*(iv) ensure the basic diagnostic services as prescribed under IPHS norms at secondary level health facilities as well as quality of test reports;*

*(v) take steps to improve and strengthen support services also so that overall healthcare experience is improved; and*

*(vi) strengthen the monitoring mechanism to identify strengths and weaknesses so as to enable the healthcare institutions to improve their overall functioning.*